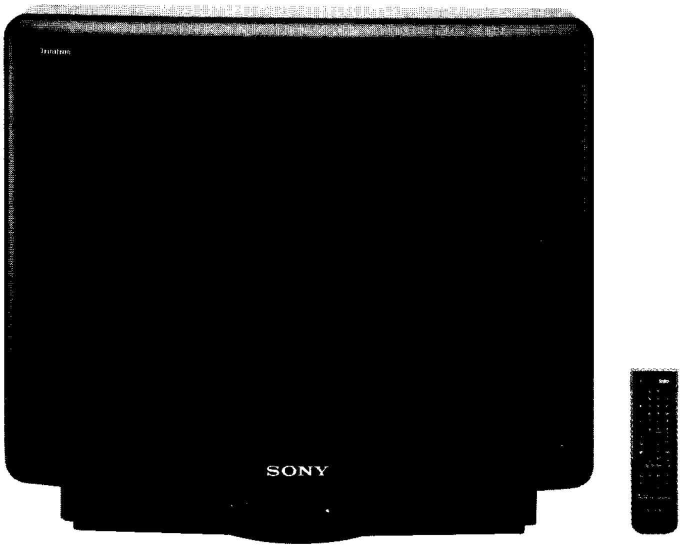
SERVICE MANUAL

AE-2 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-X2962L	RM-830	Irish	SCC-G19-CA				



MICROFILM

TRINITRON® COLOR TV

SONY®

SPECIFICATION

Television system.	I
Colour system.	PAL SECAM,NTSC3.58,NTSC4.43 (Video In)
Stereo system.	NICAM stereo.
Channel coverage.	VHF: A-J, C10 (224Mhz) UHF: E21-E69 CABLE S01-S41
Picture tube.	Hi-Black Trinitron tube Approx. 72cm (29 inches) (Approx. 68 cm picture measured diagonally) 110°-degree deflection
[REAR] Input/Output Sockets :	⊖ 1/ 21-pin Euro connector: (CENELEC standard) inputs for Audio/ Video signals and RGB. Outputs for TV Audio and Video signals. ⊖ 2/⊖ 21-pin Euro connector: Inputs for Audio and Video signals. Inputs for S-Video signals. Outputs for Audio and Video signals. (selectable) ⊖ Audio outputs (Variable) - phono jacks
[FRONT] Sockets.	⊖ 3 Video input - phono jack. ⊖ Audio input - phono jacks. ⊖ 3 S Video Input - 4 Pin Din Headphone jack output : stereo mini jack.
Sound output.	2 X 11W (RMS) 2 X 30W (Music)
Power requirement.	220-240V
Power consumption.	118Wh
Dimensions.	Approx. 656 x 566 x 518mm (w/h/d)
Weight.	Approx. 52kg
Supplied accessories.	RM-830 Remote Commander (1) IEC designation R6 batteries (2)
Other features	NICAM, FASTEXT

[RM-830]

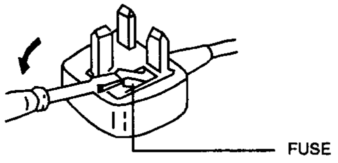
Remote control system	infrared control
Power requirements.	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions.	Approx. 65 x 222 x 21mm (w/h/d)
Weight.	Approx. 157g (including batteries.

Design and specifications are subject to change without notice.

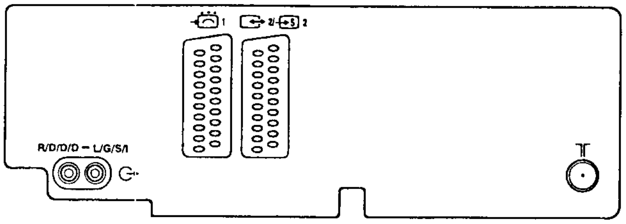
Model Name Item	KV-X2962L
Pal Comb	OFF
PiP	OFF
RGB Priority	OFF
Woofer Box	OFF
Scart 1	ON
Scart 2	ON
Front in (3)	ON
Scart 4	OFF
Dyn. Convergence	OFF
Projector	OFF
AKB in 16:9 mode	ON
Norm B/G	OFF
Norm I	ON
Norm D/K	OFF
Norm AUS	OFF
Norm L	OFF
Norm SAT	OFF
Norm M	OFF
Language Preset	English

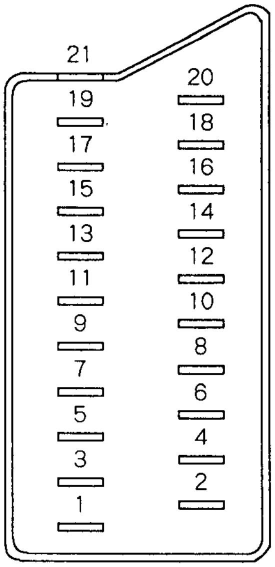
WARNING (UK MODELS ONLY)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the ASTA mark.
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME.
IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED.
THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



21 pin connector (⊡1 ⊡2/⊡4)





Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
7	○	●	Blue input	0.7 ± 3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5 – 12V) : Part mode Low state (0 – 2V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V ± 3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V ± 3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V ± 3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1 – 3V) Low state (0 – 0.4V) Input impedance : 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
20	○	–	Video input	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
	–	○	Video Input/Y (S signal)	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
21	○	○	Common ground (plug, shield)	

○ Connected ●unconnected (open) * at 20Hz – 20kHz

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

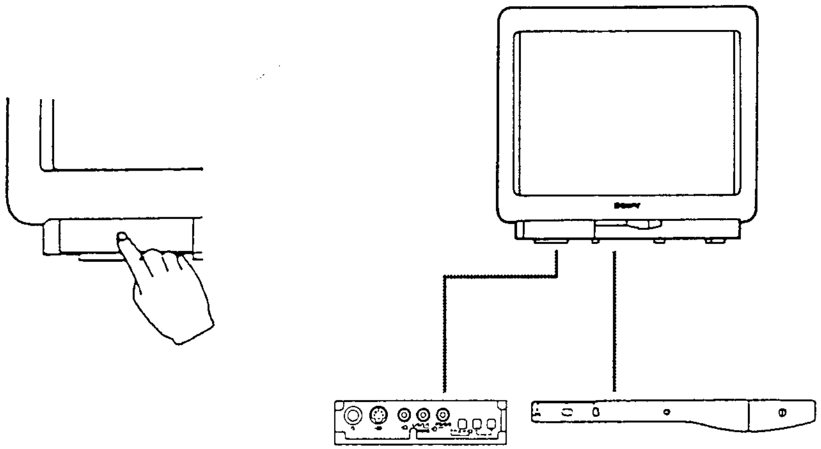
SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

1-1. OVERVIEW

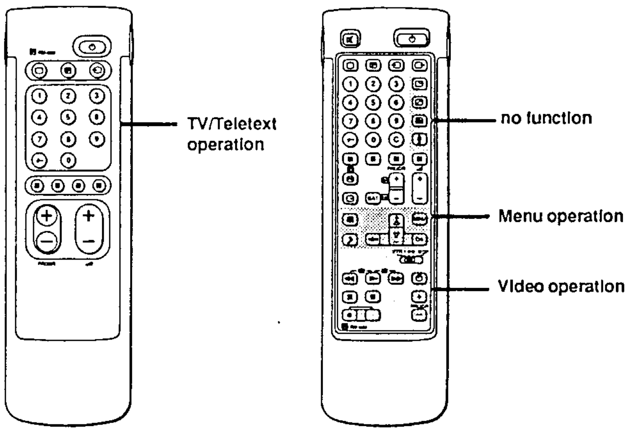
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set-front



Symbol	Name	Refer to page
⏽	4.6 Main power switch	13
⏻	4.7 Standby indicator	13
A-ↀ-B	4.8 Stereo A/B indicators	15
∩	4.9 Headphones jack	20
-Ⓢ, -⊕, -⊙,	4.10 Input jacks (S video/video/audio)	20
P→⊿→⊕	4.11 Function selector (Programme/volume/input)	14
–/+	4.13 Adjustment buttons for function selector	14

Remote Commander RM-830



A)Note
The SAT button does not operate with this TV.

B) Simple side

C) Full-Function side

TV/Teletext operation

Symbol	Name	Refer to page
≪	Muting on/off button	14
⏻	Standby button	13
▢	TV power on/TV mode selector button	13
⊜	Teletext button	14
-⊕	Input mode selector	14
⊕→	Output mode selector	21
1,2,3,4,5,6, 7,8,9,and 0	Number buttons	13
-/--	Double-digit entering button	13
C	Direct channel entering button	10
⊿+/–	Volume control button	13
PROGR+/–	Programme selectors	13
⊞⊟	Teletext page access buttons	17
●	Picture adjustment button	15
♪	Sound adjustment button	15
⊕	On-screen display button	14
⊞	Teletext hold button	17
◎	Time display button	14
■■■■	Fastext TOP-text buttons	17

Menu operation

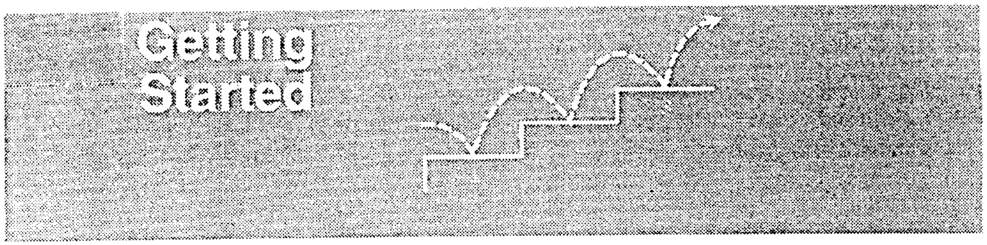
Symbol	Name	Refer to page
MENU	Menu on/off button	7
△+/▽–	Select buttons	7
OK	OK (confirming) button	7
⬅	Back button	7

Video operation

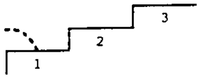
Symbol	Name	Refer to page
VTR1/2/3, MDP	Video equipment selector	22
◀ ▶ ▶▶ ■ ❚❚ ● ⏻ PROGR +/–	Video equipment operation buttons	22

Note:
The buttons ◔, ↑, ⊕, ⊕ do not operate with this TV.

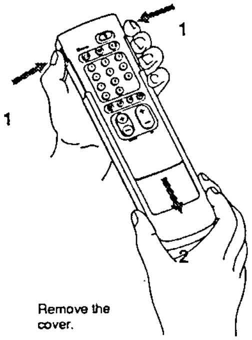
Getting Started



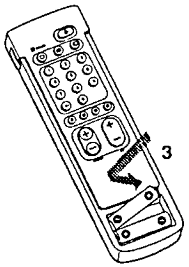
1-2. STEP 1 PREPARATION



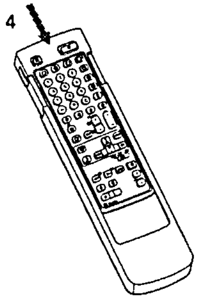
Insert the batteries into the Remote Commander



Remove the cover.



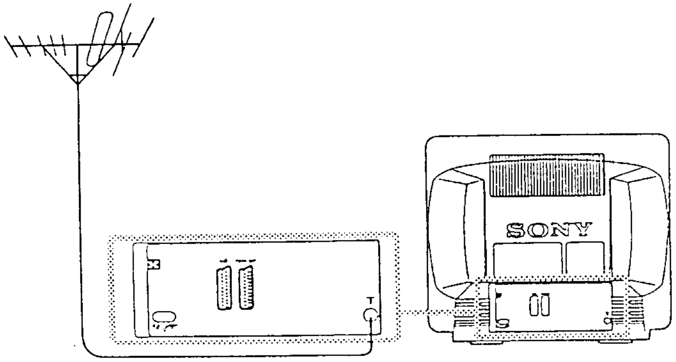
Check the correct polarities.



Refit the outside cover making sure that the Full-Function side is visible to use the menu in Step 3.

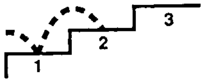
1-3. STEP 2 CONNECTION

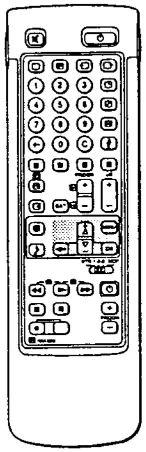
Connect the aerial



Fit an IEC aerial connector attached to 75-ohm coaxial cable (not supplied) to the ⊤ socket at the rear of the TV.
Make sure to use an aerial cable, which corresponds to the relevant regulations.

1-4. STEP 3 TUNING IN TO TV STATIONS



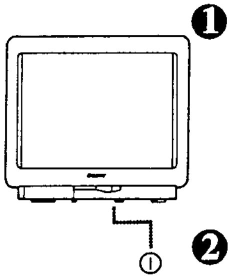


Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manuel method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.



❶ Choose a language

1 Depress ①on the TV.
The TV will switch on. If the standby indicator on the TV is lit, press ○ or a number button on the Remote Commander.
2 Press MENU.
The LANGUAGE menu appears (see Fig. 1).
3 Select the language you want with △+ or ▽– and press OK.

MENU

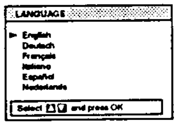

LANGUAGE
► English
Deutsch
Français
Italiano
Español
Nederlands
Select △▽ and press OK

Fig. 1.

❷ Display the Menu

Press the ← button.
The main menu appears (see Fig.2).
Now, choose one of the following methods
«Preset Channels automatically»
or
«Preset Channels manually».

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Note on the DEMO function
If you choose «Demo« on the main menu, you can see a sequential demonstration on the menu functions.
Press MENU to stop the function.

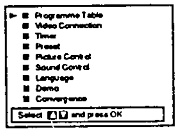

► ■ Programme Table
■ Video Connection
■ Timer
■ Preset
■ Picture Control
■ Sound Control
■ Language
■ Demo
■ Convergence
Select △▽ and press OK

Fig. 2.

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting
Press ← on the Remote Commander.

Notes
- After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see »Using the Programme Table« on page 16.
- You can exchange the programme positions to have them appear on screen in the order you like. For details, see »Exchanging Programme Positions« on page 10.

❸ Preset channels automatically

1 Select »Preset« with △+ or ▽− and press OK.
The PRESET menu appears. (See Fig.3.)

2 Select »Auto Programme« with △+ or ▽− and press OK.
The AUTO PROGRAMME menu appears. (See Fig.4.)

3 Press OK.
Press OK repeatedly until the first element of the "PROG" number is highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with △+ or ▽− or the number buttons (e.g. For »04«, select »0« here) and press OK.
The second element of »PROG« will be highlighted.

5 Select the second element of the double-digit number with △+ or ▽− or the number buttons (e.g. For »04«, select »4« here) (See Fig. 5.) and press OK.

6 The automatic channel presetting starts.
When presetting is finished, the PRESET menu reappears.
All available channels are now stored on successive number buttons.

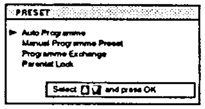


Fig. 3.

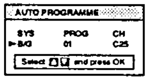


Fig. 4.

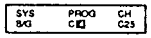


Fig. 5.

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.

If you have made a mistake
Press ← to go back to the previous position.
To go back to main menu
Keep pressing ←.
To go back to the normal TV picture
Press MENU.

❸ Preset channels manually

1 Select »Preset« with △+ or ▽− and press OK.
The PRESET menu appears. (See Fig.6.)

2 Select »Manual Programme Preset« with △+ or ▽− and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 7.)

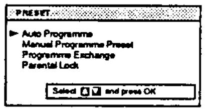
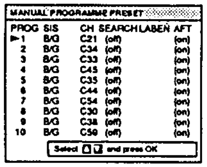


Fig. 6.



PROG	SIS	CH	SEARCH	LABEN	AFT
►1	B/G	C21	(off)		(on)
2	B/G	C34	(off)		(on)
3	B/G	C33	(off)		(on)
4	B/G	C45	(off)		(on)
5	B/G	C35	(off)		(on)
6	B/G	C44	(off)		(on)
7	B/G	C54	(off)		(on)
8	B/G	C30	(off)		(on)
9	B/G	C38	(off)		(on)
10	B/G	C50	(off)		(on)

Fig. 7.

To tune in a channel by frequency
After selecting F in step 6, enter three digits using the number buttons.
Press OK.

3 Using △+ or ▽−, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Keep pressing ▽− to select programme numbers higher than 10.

5 Select, if necessary, a video input source (EXT) with ▽+ or ▽−. Then press OK. The first element of the CH position will be highlighted. (See Fig. 8)

6 Using △+ or ▽−, select C (to preset a regular channel), or F (to tune in by frequency) and press OK.
The first element of the »CH« number will be highlighted.
If you have selected EXT in step 4, select the video input source with △+ or ▽−. (See Fig. 9).

Please refer to "Television channel Number Guide" on page 25.

There are two ways to preset channels. If you know the channel number, go to step »7-Manual«,
or
if you don't know the channel number, go to step »7-Search«.

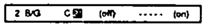


Fig. 8.

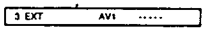


Fig. 9.

7 *Manual*
-a Select the first element of the »CH« number with △+ / ▽− or the number buttons and press OK.
The second element of the »CH« number will be highlighted.
-b Select the second element of the number with △+ / ▽− or the number buttons.
The selected number appears. (See Fig. 10.).
-c Press OK.
The »SEARCH« position is highlighted and the selected channel is noe stored. (See Fig. 11.).
-d Press OK until the cursor appears by the next programme position.
-e Repeat steps 3 to 7 to preset other channels.

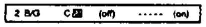


Fig. 10.

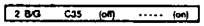


Fig. 11.

If you have made a mistake
Press ← to go back to the previous position.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

7 *Search*
-a Press OK repeatedly until the colour of the SEARCH position changes.
-b Start searching for the channel with △+ (up) or ▽− (down).
The CH position changes colour. (See Fig. 12.).
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13).
-c Press OK if you want to store this channel. If not, press △+ or ▽− to continue channel searching.
-d Press OK until the cursor appears by the next programme position.
-e Repeat steps 3 to 7 to preset other channels.

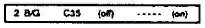


Fig. 12.

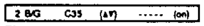
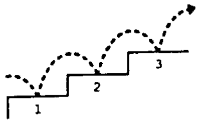


Fig. 13.

1-5. ADDITIONAL PRESETTING FUNCTIONS

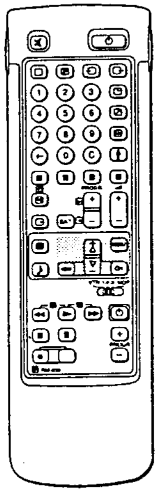


This section shows you additional presetting functions such as exchanging or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible.
- Locate the Menu operation buttons.

PROGRAMME EXCHANGE



Exchanging Programme Positions

With this function, you can exchange the programme positions to a preferable order.

1 Press MENU to display the main menu.

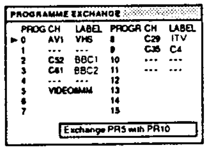
2 Select "Preset" with △+ or ▽– and press OK.
The PRESET menu appears.

3 Select "Programme Exchange" with △+ or ▽– and press OK.
The PROGRAMME EXCHANGE menu appears.(See Fig. 14.)

4 Using △+ or ▽–, select the programme position you want to exchange with another and press OK.
The colour of the selected position changes. (See Fig. 15.)

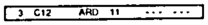
5 Using △+ or ▽–, select the programme position to be exchanged and press OK. Now the two programme positions have been exchanged. (See Fig. 16.)

6 Repeat steps 4 and 5 to exchange other programme positions.



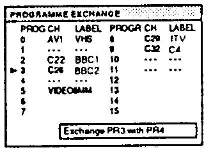
```
PROGRAMME EXCHANGE
   PROG CH     LABEL  PROGR CH    LABEL
 ► 0    AV1    VHS    8     C29   ITV
   1    ---    ---    9     C35   C4
   2    C52    BBC1   10    ---   ---
   3    C41    BBC2   11    ---   ---
   4    ---    ---    12
   5    VIDEO8MM      13
   6                  14
   7                  15
           Exchange PR5 with PR10
```

Fig. 14.



```
 3   C12      ARD   11       ---   ---
```

Fig. 15.



```
PROGRAMME EXCHANGE
   PROG CH     LABEL  PROGR CH    LABEL
   0    AV1    VHS    8     C29   ITV
   1    ---    ---    9     C32   C4
   2    C22    BBC1   10    ---   ---
 ► 3    C26    BBC2   11    ---   ---
   4    ---    ---    12
   5    VIDEO8MM      13
   6                  14
   7                  15
           Exchange PR3 with PR4
```

Fig. 16.

For higher programme positions
The display scrolls automatically.

If you have made a mistake
Press ← to go back to the previous position

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Tuning in a Channel Temporarily

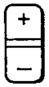
You can tune in to a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

1 Press C on the Remote Commander. For cable channels, press C twice.
The indication »C« (»S« for cable channels) appears on the screen.

2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

MANUAL PROGRAMME PRESET

Skipping Programme Positions



You can skip unused programme positions when selecting programmes with the PROGR +/– buttons. However, the skipped programmes may still be called up when you use the number buttons.

1 Press MENU to display the main menu.

2 Select »Preset« with △+ or ▽– and press OK.
The PRESET menu appears.

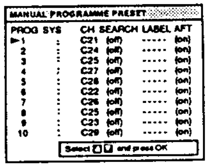
3 Select »Manual Programme Preset« with △+ or ▽– and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig.17.)

4 Using △+ or ▽–, select the programme position which you want to skip and press OK.
The »SYS« position changes colour.

5 Press △+ or ▽– until »----« appears in the SYSTEM position. (See Fig. 18.)

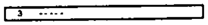
6 Press OK. (See Fig. 19.)
When you select programmes using the PROGR+/– buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.



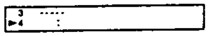
```
MANUAL PROGRAMME PRESET
PROG SYS   CH  SEARCH  LABEL  AFT
► 1    :   C21  (off)  -----  (on)
  2    :   C24  (off)  -----  (on)
  3    :   C25  (off)  -----  (on)
  4    :   C27  (off)  -----  (on)
  5    :   C28  (off)  -----  (on)
  6    :   C22  (off)  -----  (on)
  7    :   C26  (off)  -----  (on)
  8    :   C25  (off)  -----  (on)
  9    :   C23  (off)  -----  (on)
 10    :   C29  (off)  -----  (on)
       Select △ ▽ and press OK
```

Fig. 17.



```
  3    -----
```

Fig. 18.



```
  3    -----
► 4        :
```

Fig. 19.

MANUAL PROGRAMME PRESET

If you have made a mistake
Press ← to go back to the previous position.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Captioning a Station Name

You can »name« a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select »Preset« with △+ or ▽– and press OK.
The PRESET menu appears.

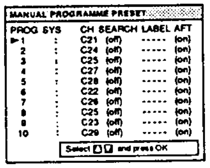
3 Select »Manual Programme Preset« with △+ or ▽– and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 20.)

4 Using △+ or ▽–, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with △+ or ▽– and press OK.
The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 21.)

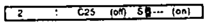
6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin).
Now the caption you chose is stored. (See Fig. 22.)

7 Repeat steps 5 and 6 to caption names for other channels.



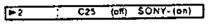
```
MANUAL PROGRAMME PRESET
PROG SYS   CH  SEARCH  LABEL  AFT
► 1    :   C21  (off)  -----  (on)
  2    :   C24  (off)  -----  (on)
  3    :   C25  (off)  -----  (on)
  4    :   C27  (off)  -----  (on)
  5    :   C28  (off)  -----  (on)
  6    :   C22  (off)  -----  (on)
  7    :   C26  (off)  -----  (on)
  8    :   C25  (off)  -----  (on)
  9    :   C23  (off)  -----  (on)
 10    :   C29  (off)  -----  (on)
       Select △ ▽ and press OK
```

Fig. 20.



```
  2      :    C25   (off)  S█---  (on)
```

Fig. 21.



```
► 2      :    C25   (off)  SONY- (on)
```

Fig. 22.

MANUAL PROGRAMME PRESET

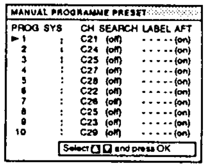
Manual Fine-Tuning

Normally, the AFT (automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

Manually fine tuned channels will be identified by ←F→ on the on screen indication (See page 15)

1 Press MENU to display the main menu.
2 Select »Preset« with △+ or ▽– and press OK.
The PRESET menu appears.
3 Select »Manual Programme Preset« with △+ or ▽– and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 23.)
4 Using △+ or ▽–, select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.
5 Fine-tune the channel with △+ or ▽– so that you get the best TV reception. As you press the cursor buttons, the frequency changes from – 15 to + 15. (See Fig. 24.)
6 After fine tuning, press OK.
The cursor appears beside the next programme position (at the left margin). (See Fig. 25.) Now the fine-tuned level is stored.
7 Repeat steps 4 to 6 to fine-tune other channels.

To reactivate AFT (automatic fine tuning).
Repeat from the beginning and select »ON« in step 5.

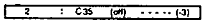


MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
►1	:	C21	(off)	-----	(on)
2	:	C24	(off)	-----	(on)
3	:	C25	(off)	-----	(on)
4	:	C27	(off)	-----	(on)
5	:	C28	(off)	-----	(on)
6	:	C22	(off)	-----	(on)
7	:	C26	(off)	-----	(on)
8	:	C25	(off)	-----	(on)
9	:	C23	(off)	-----	(on)
10	:	C29	(off)	-----	(on)

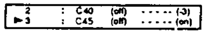
Select △ ▽ and press OK

Fig. 23.



2	:	C35	(off)	-----	(-3)

Fig. 24.



2	:	C40	(off)	-----	(-3)
►3	:	C45	(off)	-----	(on)

Fig. 25.

PARENTAL LOCK

Parental Lock

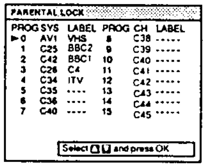
You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1 Press MENU to display the main menu.
2 Select "Preset" with △+ or ▽– and press OK.
The PRESET menu appears.
3 Select "Parental Lock" with △+ or ▽– and press OK.
The PARENTAL LOCK menu appears. (See Fig. 26.)
4 Using △+ or ▽–, select the programme position you want to block and press OK.
The CH and LABEL change colour indicating that this programme is now blocked. (See Fig. 27.)
5 Repeat step 4 to block other programme positions.

Cancelling blocking

1 On the PARENTAL LOCK menu, select the programme position you want to unblock with △+ or ▽–.
2 Press OK.
The selected PROG number, CH and LABEL change colour to normal colour indicating that the blocking has been cancelled.

If you try to select a programme that has been blocked
The message »LOCKED« appears on the blank TV screen.

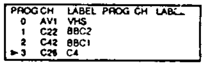


PARENTAL LOCK

PROG	SYS	LABEL	PROG	CH	LABEL
►0	AV1	VHS	8	C38	-----
1	C25	BBC2	9	C39	-----
2	C42	BBC1	10	C40	-----
3	C26	C4	11	C41	-----
4	C34	ITV	12	C42	-----
5	C35	----	13	C43	-----
6	C36	----	14	C44	-----
7	C40	----	15	C45	-----

Select △ ▽ and press OK

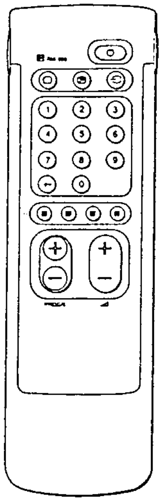
Fig. 26.



PROG	CH	LABEL	PROG	CH	LABEL
0	AV1	VHS			
1	C22	BBC2			
2	C42	BBC1			
►3	C26	C4			

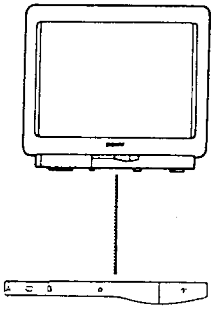
Fig. 27.

1-6. WATCHING THE TV



If no picture appears when you depress ⓘ on the TV and if the standby indicator on the TV is lit, the TV is in standby mode. Press ○ or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.



Switching the TV on and off

Switching on

Depress ⓘ on the TV.

Switching off temporarily

Press ⏻ on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

To switch on again

Press ○, PROGR +/–, or one of the number buttons on the Remote Commander.

Switching off completely

Depress ⓘ on the TV.

Selecting TV Programmes

Press PROGR +/– or press the number buttons.

To select a double-digit number

Press -/--, then the numbers.
For example, if you want to choose 23, press -/--, 2, and 3.

Adjusting the Volume

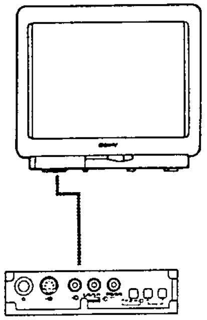
Press ◿ +/–.

1-7. ADJUSTING AND SETTING THE TV USING THE MENU

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

- Press the P→◿→⊖ button repeatedly until the programme number, ◿ (for volume), or ⊖ (for video input picture) appears. Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET function).



Watching Teletext or Video Input

For details of the teletext operation, refer to page 17.

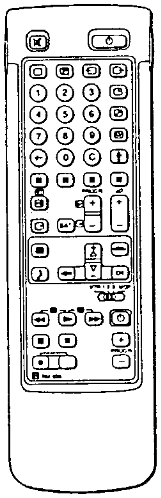
Watching teletext

- Press ⊜ to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext or TOP-Text operation.
- Press ⊕ (PAGE +) or ⊖ (PAGE –) for the next or preceeding page.
- To go back to the normal TV picture, press ○.

For details of the video input picture, refer to page 21.

Watching a video input picture

Press ⊖ repeatedly until the desired video input appears. To go back to the normal TV picture, press ○.



More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

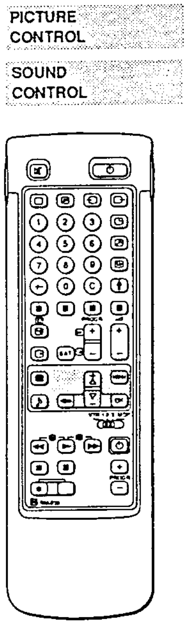
- Press ⊕ once to display all the indications. They will disappear after some seconds.
- Press ⊕ twice to have the programme number and label stay on screen. Press twice again to make the indications disappear.

Muting the sound

Press ⊗.
To resume normal sound, press ⊗ again.

Displaying the time

Press ©. This function is available only when teletext is broadcast.
To make the time display disappear, press © again.



If you have made a mistake
Press ⟵ to go back to the previous position.

To go back to the main menu
Keep pressing ⟵.

To go back to the normal TV picture
Press MENU.

Note
HUE is only available for NTSC colour systems.

Note on LINE OUT
The audio level and the dual sound mode output from the ⊖ jack on the rear correspond to the Headphone VOLUME and DUAL SOUND settings.

When watching a video input picture
You can select DUAL SOUND to change the sound.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can change the aspect ratio of the TV display for wide screen effect or set the resolution to obtain a higher quality picture. You can also select dual sound (bilingual) programmes when available or adjust the sound for listening with the headphones.

1 Press ■ (for picture) or ♪ (for sound) on the remote Commander.

or

Press MENU and select »Picture Control« or »Sound Control«, then press OK.
The PICTURE CONTROL or SOUND CONTROL menu appears. (See Fig. 28 or Fig. 29.)

2 Using △+ or ▽–, select the item you want to adjust and press OK. The selected item changes colour. (See Fig. 30.)

3 Adjust the setting with △+ or ▽– and press OK.
The cursor appears beside the next item (at the left margin). (See Fig. 31.)
For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.

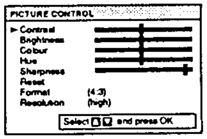


Fig. 28.

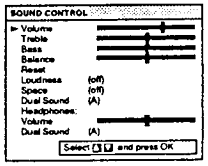


Fig. 29.

Brightness

Fig. 30.

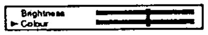


Fig. 31.

Effect of each control

PICTURE CONTROL	Effect	
Contrast	Less ——+—— More	
Brightness	Darker ——+—— Brighter	
Colour	Less ——+—— More	
Hue	Greenish ——+—— Reddish	
Sharpness	Softer ——+—— Sharper	
Reset	Resets picture to the factory preset levels.	
Format	4 : 3 : Normal	16 : 9 : Wide screen effect
Resolution	Normal	high : Obtain a higher quality picture

SOUND CONTROL	Effect	
Volume	Less —+— More	
Treble	Less —+— More	
Bass	Less —+— More	
Balance	More left —+— More right	
Reset	Resets sound to the factory preset levels.	
Loudness	off: Normal	on: When listening to low volume sound.
Space	off: Normal	on: Obtain acoustic sound effect.
Dual Sound	A: left channel	B: right: channel Stereo mono
	The selected mode of the A-CD-B Indicator on the TV lights up (for NICAM broadcasts see next page)	
Headphones :		
Volume	Less —+— More	
Dual Sound	A: left channel	B: right channel stereo mono

1-8. TELETEXT

*Selecting Nicam Broadcasts**

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received »NICAM« appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the A-CD-B indicators, on the TV will switch off.

Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these by first following the instructions explained on page 16.

Service Being Broadcast	Action	Effect	Indication on the TV A-CD-B	
Stereo	Press Δ+ or ∇–	Stereo Nicam (Mono 2-Channel)	■	■
		mono	□	□
Press Δ+ or ∇– again to return to stereo Nicam (mono 2-channel)				
Bilingual	Press Δ+ or ∇–	Channel A Nicam	■	□
		Channel B Nicam	□	■
		mono	□	□
Press Δ+ or ∇– again to return to channel A Nicam				

* Depending on availability of service.

PROGRAMME TABLE

To go back to the normal TV picture
Press MENU.

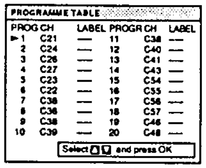
Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

From the main menu, select »Programme Table« with Δ+ or ∇– and press OK.
The PROGRAMME TABLE menu appears. (See Fig. 32.)

To scroll to higher programme numbers, press Δ –.

To select a programme using this menu
Select the programme number with Δ+ or ∇– and press OK.
The selected programme appears.


PROGRAMME TABLE

PROG	CH	LABEL	PROGR	CH	LABEL
► 1	C21	—	11	C38	—
2	C24	—	12	C40	—
3	C26	—	13	C41	—
4	C27	—	14	C43	—
5	C23	—	15	C54	—
6	C22	—	16	C55	—
7	C38	—	17	C56	—
8	C36	—	18	C57	—
9	C38	—	19	C46	—
10	C39	—	20	C48	—

Select Δ ∇ and press OK

Fig. 32.

TIMER

To switch off the timer
Select »OFF« in step 3.

To check the remaining time
Press ⊖.

Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

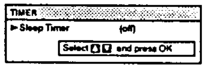
1 From the main menu, select »Timer« with Δ+ or ∇– and press OK.
The TIMER menu appears. (See Fig. 33.)

2 Press OK.
The time period option changes colour.

3 Select the time period with Δ+ or ∇–.
The time period (in minutes) changes as follows:

10 → 20 → 30 → 40 → 50 → 60 → 70 → 80 → 90
↑—————— OFF ——————┘

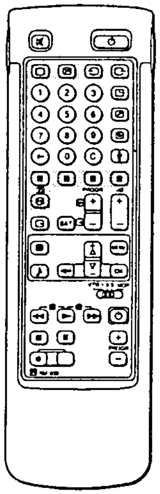
4 After selecting the time period, press OK.
The cursor moves back to the left margin and the timer starts counting.
One minute before the TV switches into standby mode, a message is displayed on the screen.


TIMER

► Sleep Timer (off)

Select Δ ∇ and press OK

Fig. 33.



Note
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander
You can switch teletext on and off, operate Fastext, and directly select page numbers.

Note
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

TV stations broadcast an information service called Teletext via the TV channels.Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press ⊜ to switch on teletext.
A teletext page will be displayed (usually the index page).
If there is no teletext broadcast, P100 is displayed on the information line at the top of the screen.

To switch teletext off

Press ○.

Selecting a teletext page

With direct page selection

Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number.
If the page counter keeps searching,
the page number might not be available.

With page-catching

1 Select a teletext page with a page overview (e.g. index page).

2 Press ⊕ twice. »Page catching« will be displayed on the information line. The last digit of the first displayed page number flashes.

3 Using Δ+ or ∇–, select the desired page and press OK.
The requested page will appear in a few seconds.

Accessing next or preceding page

Press ⊕ (PAGE+) or ⊖ (PAGE-).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

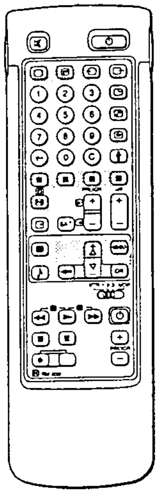
- Press ⊜ once in teletext mode or twice in TV mode.
- Press ⊜ again to resume normal teletext reception.

Preventing a teletext page from being updated

- Press ⊕ (HOLD). The HOLD symbol "⊕" is displayed on the information line.
- Press ⊜ to resume normal teletext reception.

Using Fastext

With Fastext you can access pages with one key stroke.
When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after a few seconds.



Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched in, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 34.)

2 Using △+ or ▽–, select the teletext function you want and press OK. (See Fig. 35.)

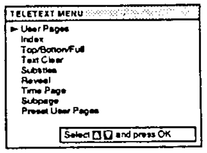


Fig. 34.

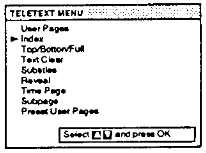


Fig. 35.

USER PAGES/PRESET USER PAGES

See page 19 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display. After having selected the function, an information line TOP/BOTTON/FULL will be displayed. (See Fig. 36.)

Press △+ for »Top« to enlarge the uper half, ▽– for »Bottom« to enlarge the lower one and OK for »Full« to resume the normal size.

Press ⊜ to resume normal teletext reception.

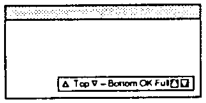


Fig. 36.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be captured (The symbol change colour.) (See page Fig. 37)

Press ⊟ to view the captured page.

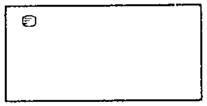


Fig. 37.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes Pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line »REVEAL ON/OFF« will be displayed. (See Fig. 38.)

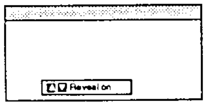


Fig. 38.

Using △+ or ▽–, select ON to reveal the information of OFF to conceal it again.

Press ⊜ to resume normal teletext reception.

TIME PAGE

This function is not available.

Note
Some of the features may not be available depending on the Teletext service.

Note on SUBTITLES
If the subtitles are not broadcast on page 888, please select the subtitle page using the number buttons.

To cancel the request
Select »OFF« for the TIME PAGE setting.

If two broadcasting stations use the same Teletext
You can preset one bank to 2 different programme positions.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. If you want to select one subpage, follow the operations below.

Using ▽+ or ▽–, select the SUBPAGE setting and press OK.

To select the desired subpage, enter four digits using PAGE +/– or the number buttons (e.g. enter 0002 for the second page of a sequence).

User Page Bank System

You can store up to 30 pages in the »Teletext page bank system«. In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 »banks« (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

1 Press ⊜ (if Teletext is not on already) and MENU to show the TELETEXT MENU display.

2 Select PRESET USER PAGES with △+ or ▽– and press OK.

3 Select the desired bank with △+ or ▽– and press OK. The cursor will go to the first position (P1) of the preferred pages.

4 Input the three digits of your first preferred page with the number buttons and press OK.
The cursor will go to the second position.

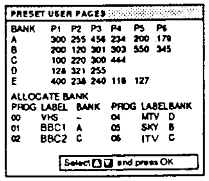
5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number.
After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.

6 Select »Allocate Bank« with △+ or ▽– and press OK.

7 Select the programme position for which you have preset pages with △+ or ▽– and press OK. (See Fig. 39.).

8 Select the desired bank with △+ or ▽– (Banks A to E are available) and press OK.

9 Repeat steps 3 to 8 for the other 4 banks available.



PRESET USER PAGES

BANK	P1	P2	P3	P4	P5	P6
A	300	255	456	234	200	179
B	200	120	301	303	550	345
C	100	220	300	444		
D	128	321	255			
E	400	238	240	118	127	

ALLOCATE BANK

PROG	LABEL	BANK	PROG	LABEL	BANK
00	VHS	–	04	MTV	D
01	BBC1	A	05	SKY	B
02	BBC2	C	06	ITV	C

Fig. 39.

Displaying User Pages.

1 Select MENU.

2 Select USER PAGES with △+ or ▽– and press OK.
A table of the stored preferred pages will be displayed. (See Fig. 40.)

3 Select the desired page with △+ or ▽– and press OK. The page will be displayed after some seconds.

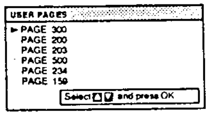


Fig. 40.

1-9. CONNECTING AND OPERATING OPTIONAL EQUIPMENT

Connecting Optional Equipment

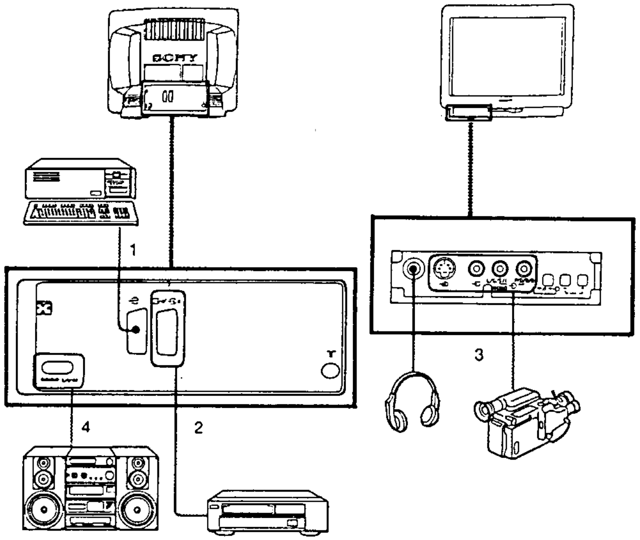
You can connect optional audio-video equipment to this TV such as a VTRs, video disc player, and stereo system.

To connect a VTR using the T terminal
Connect the serial output of the VTR to the aerial terminal T of the TV.

If the picture or the sound is distorted
Move the VTR away from the TV.

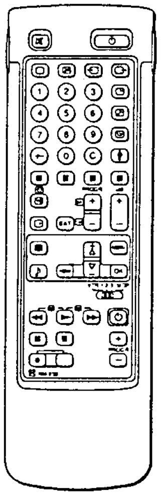
S video Input(Y/C Input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (especially luminance).
This TV is equipped with 2 S Video input jacks through which these separated signals can be input directly.

When connecting a monaural VTR
Connect only the white -⊙ jack to both the TV and VTR.



Acceptable input signal	Available output signal
1 Normal audio/video and RGB signal	Video/audio from TV tuner
2 Normal audio/video and S video signal	Video/audio from selected source
3 Normal audio/video and S video signal	No outputs
4 No inputs	Audio signal (variable)

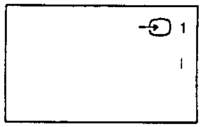
Selecting Input with PROGR +/– or number buttons
You can preset video input sources to the programme positions so that you can select them with PROGR +/– or number buttons. For details, see "Preset channels manually" on page 8.



Selecting input and output

This section explains how to view the video input picture (of a video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

Selecting input



Press -⊙ repeatedly to select the input source.

The symbol of the selected input source will appear.

To go back to the normal TV picture

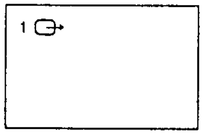
Press ○.

Input modes

Symbol	Input signal
-⊙ 1	Audio/video input through the -⊚ 1 connector
-⊚	RGB input through the -⊚ 1 connector
-⊙ 2	Audio/video input through the ⊙→ 2/ -Ⓢ 2 connector
-Ⓢ 2	S video input through the ⊙→ 2/ -Ⓢ 2 connector
-⊙ 3	Audio/video input through -⊙ 3 and -⊙ 3 on the front
-Ⓢ 3	S video input through the -Ⓢ 3 connectors on the front (4-pin connector)

You can also select the input mode using the P→◿→-⊙ and –/+ buttons on the TV. In this case, first select -⊙, and then press –/+ buttons to select the input.

Selecting the output



The ⊙→ 2 /-Ⓢ 2 connector outputs the source input from the other connectors.

Press ⊙→ repeatedly to select the output.

The symbol of the selected output source appears.

Output modes

Symbol	⊙→ 2/ -Ⓢ 2 connector outputs
1 ⊙→	The audio/video signal from the -⊚ 1 connector
2 ⊙→	The audio/video signal from the ⊙→2/ -Ⓢ connector
2 Ⓢ→	The audio/S video signal from the ⊙→2/ or -Ⓢ 2 connector
3 ⊙→	The audio/video signal from the -⊙ 3 and -⊙3 connectors
3 Ⓢ→	The audio/S video signal from the -Ⓢ 3 and -⊙ 3 connectors
TV⊙→	The audio/video signal from the T aerial terminal

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen, and which output source is selected. You can also select them on the menu display.

1 Select »Video Connection« with △+ or ▽– and press OK. The VIDEO CONNECTION menu appears. (See Fig. 41.)
You can see which source is selected for the TV input and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV screen (input source for the TV screen), or Output (output source) with △+ or ▽– and press OK. One of the source items changes colour. (See Fig. 42.)

3 Select the desired source with △+ or ▽–. (See Fig. 43.)
For details about each source, see the table on page 21.

4 Press OK.
The selected source is confirmed, and the cursor appears. (See Fig. 44.)

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

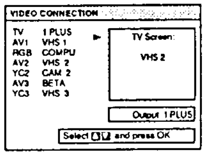

VIDEO CONNECTION
TV 1 PLUS
AV1 VHS 1
RGB COMPU
AV2 VHS 2
YC2 CAM 2
AV3 BETA
YC3 VHS 3
TV Screen:
VHS 2
Output 1 PLUS
Select and press OK

Fig. 41.

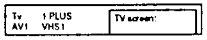

Tv 1 PLUS
AV1 VHS1
TV screen:

Fig. 42.

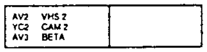

AV2 VHS 2
YC2 CAM 2
AV3 BETA

Fig. 43.

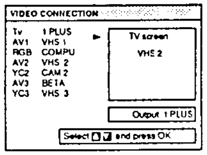

VIDEO CONNECTION
Tv 1 PLUS
AV1 VHS 1
RGB COMPU
AV2 VHS 2
YC2 CAM 2
AV3 BETA
YC3 VHS 3
TV screen
VHS 2
Output 1 PLUS
Select and press OK

Fig. 44.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most of Sony remote-controlled video equipment such as: Beta, 8 mm or VHS VTRs or video disc players.

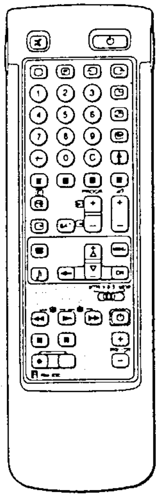
Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR
VTR 2: 8 mm VTR
VTR 3: VHS VTR
MDP : Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.
If your video equipment is furnished with a COMMAND MODE selector, set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.



When recording
when you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

1-10. FOR YOUR INFORMATION

Troubleshooting

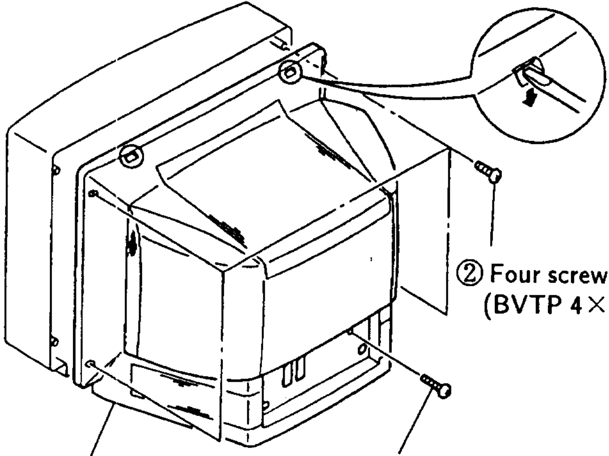
Here are some simple solutions to some problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	• Plug in the TV in. • Press ⏻ on the TV. (If ⏻ indicator is on, press ○ or a programme number on the Remote Commander). • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using ⏻.
Poor or no picture (screen is dark), but good sound	• Press ■ to enter the PICTURE CONTROL menu and adjust the »Brightness«, »Contrast« and »Colour«.
Good picture but no sound	• Press ⊿ +. • Check loudspeakers connection. • If ≪ is displayed on the screen, press ≪.
No colour for colour programmes	25.13 • Press ■ to enter the PICTURE CONTROL menu, select »Reset«, then press OK.
Remote Commander does not function	25.15 • Replace batteries.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL



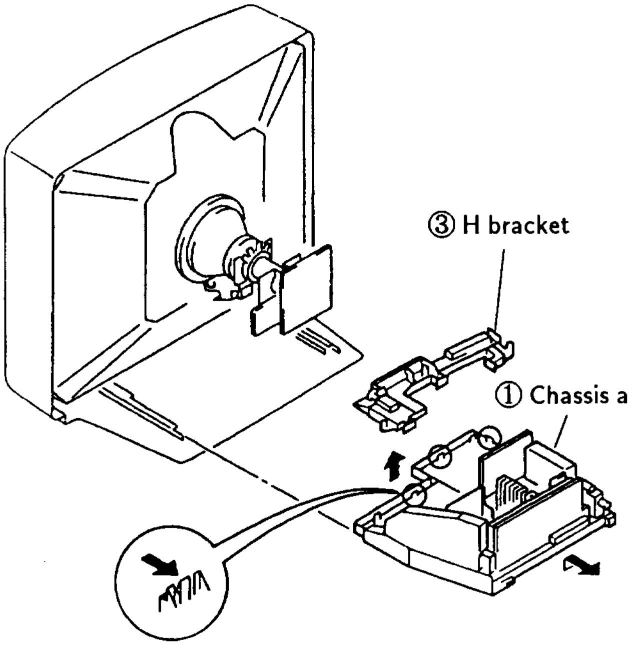
③ Remove two claws push diagonally from the above using a flat head screwdriver.

② Four screws (BVTP 4×16)

① One screw (BVTP 4×16)

④ Rear cover

2-2. CHASSIS ASSY REMOVAL

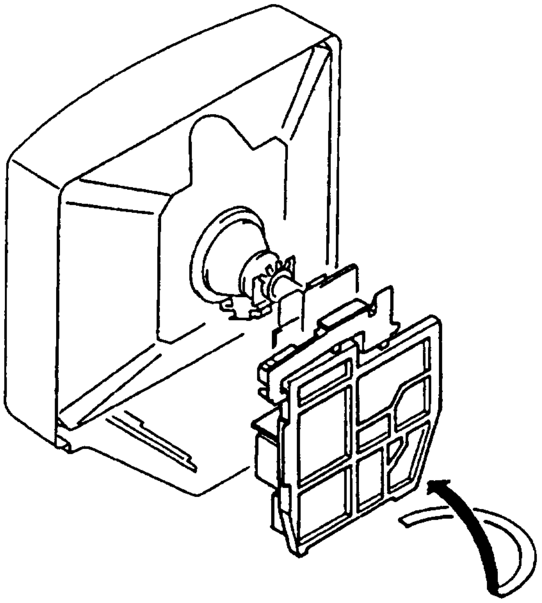


③ H bracket

① Chassis assy

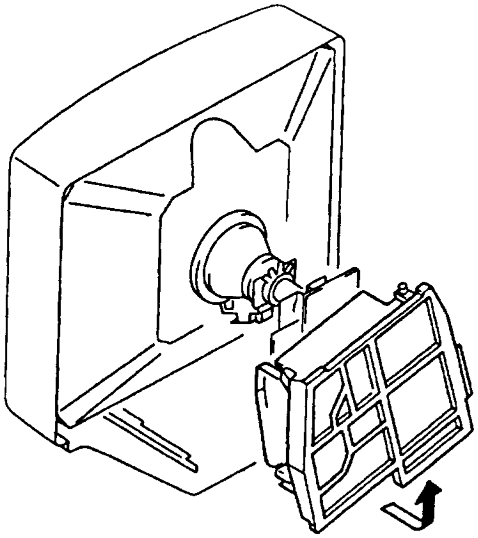
② Push the three claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

2-3. SERVICE POSITION (1)

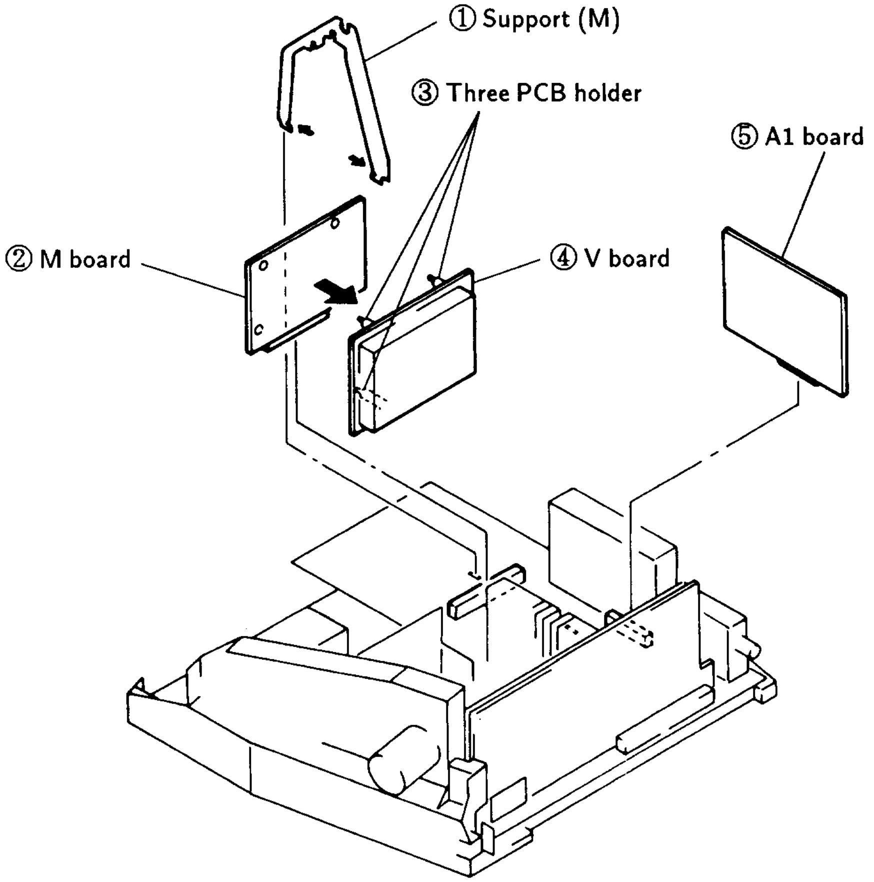


SERVICE POSITION (2)

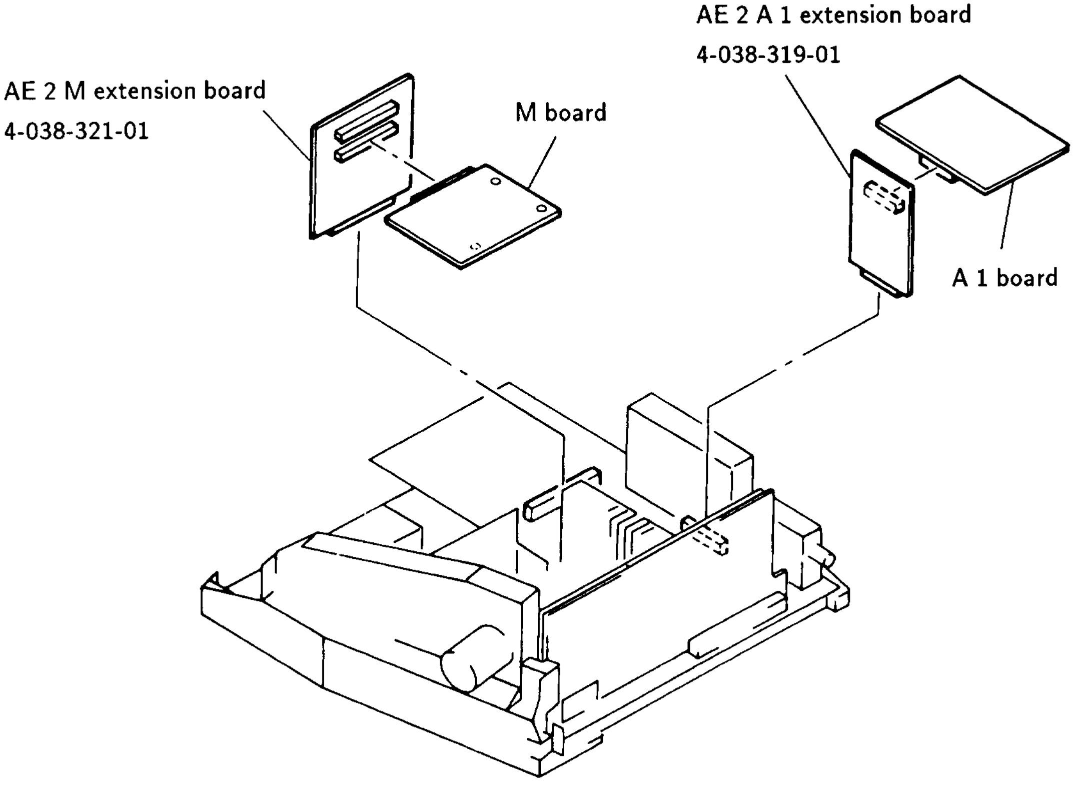
※ Remove the H bracket from the chassis assy and then perform the following servicing.
(Refer to 2-2. CHASSIS ASSY REMOVAL)



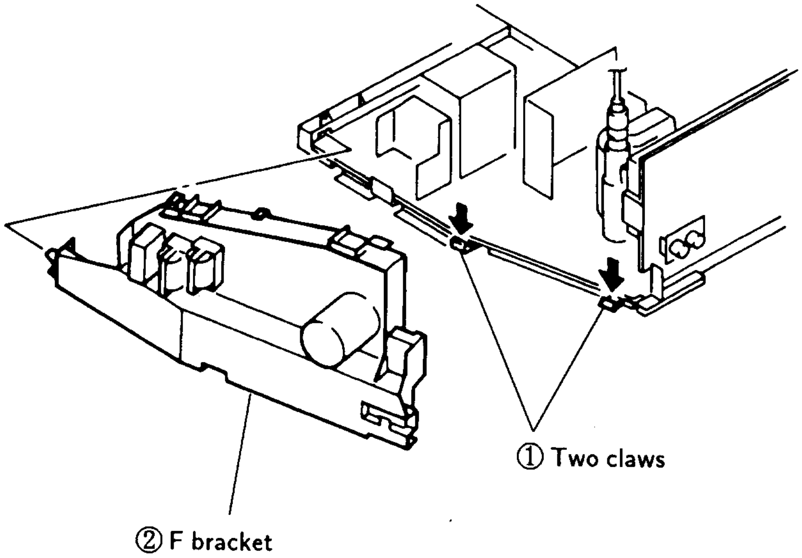
2-4. M, V AND A1 BOARDS REMOVAL


① Support (M)
③ Three PCB holder
⑤ A1 board
② M board
④ V board

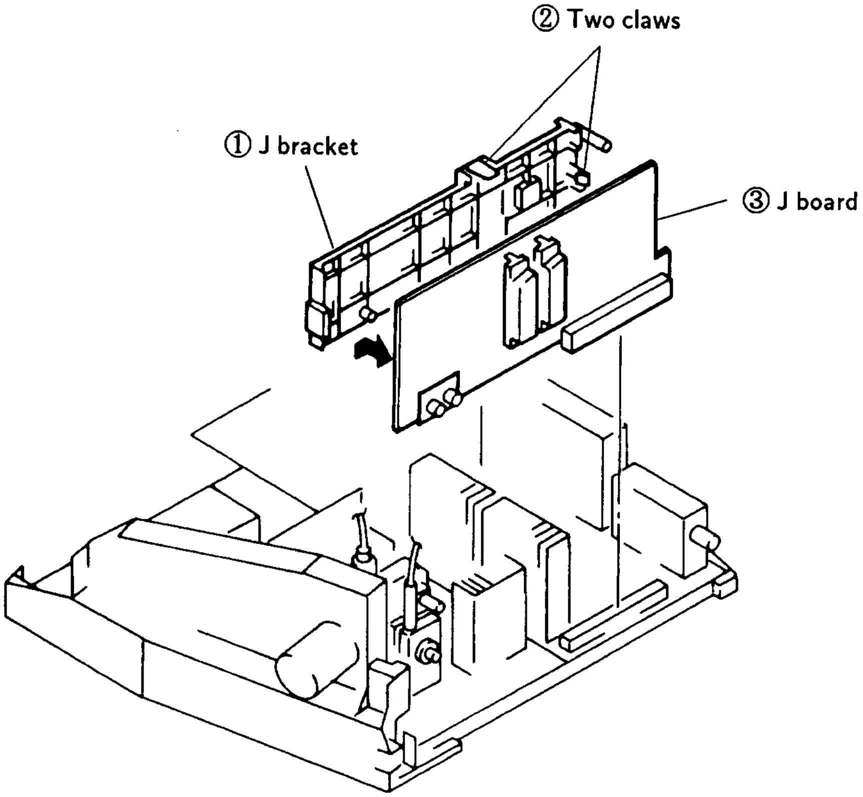
2-5. EXTENSION BOARD


AE 2 A 1 extension board
4-038-319-01
AE 2 M extension board
4-038-321-01
M board
A 1 board

2-6. F BRACKET REMOVAL

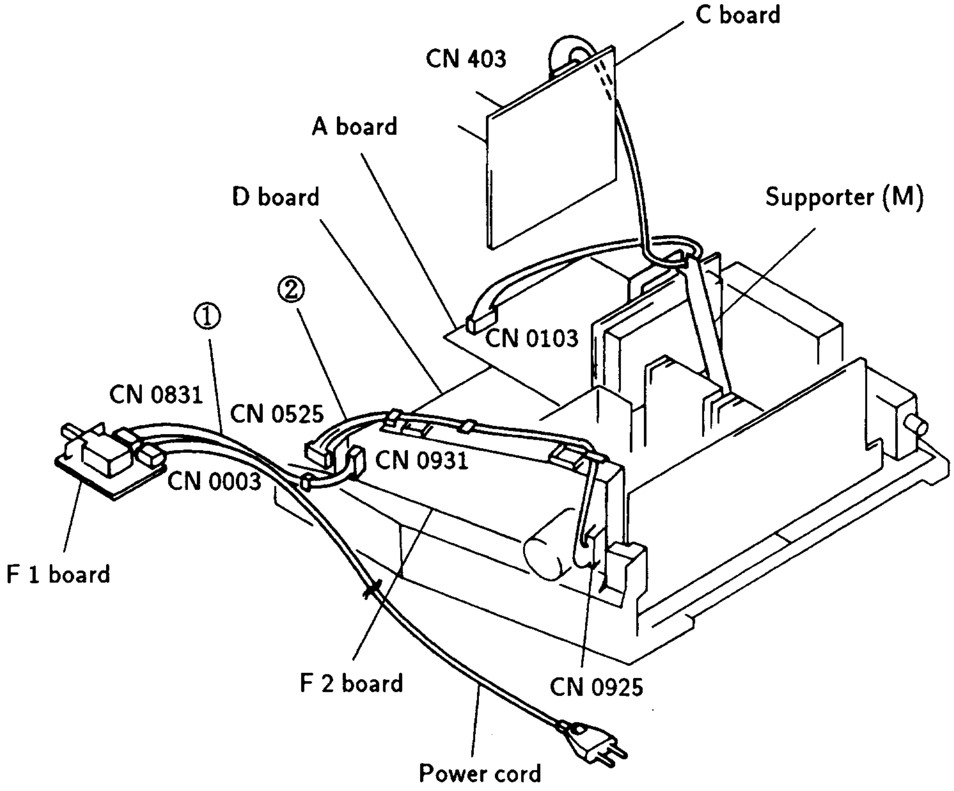

① Two claws
② F bracket

2-7. J BOARD REMOVAL

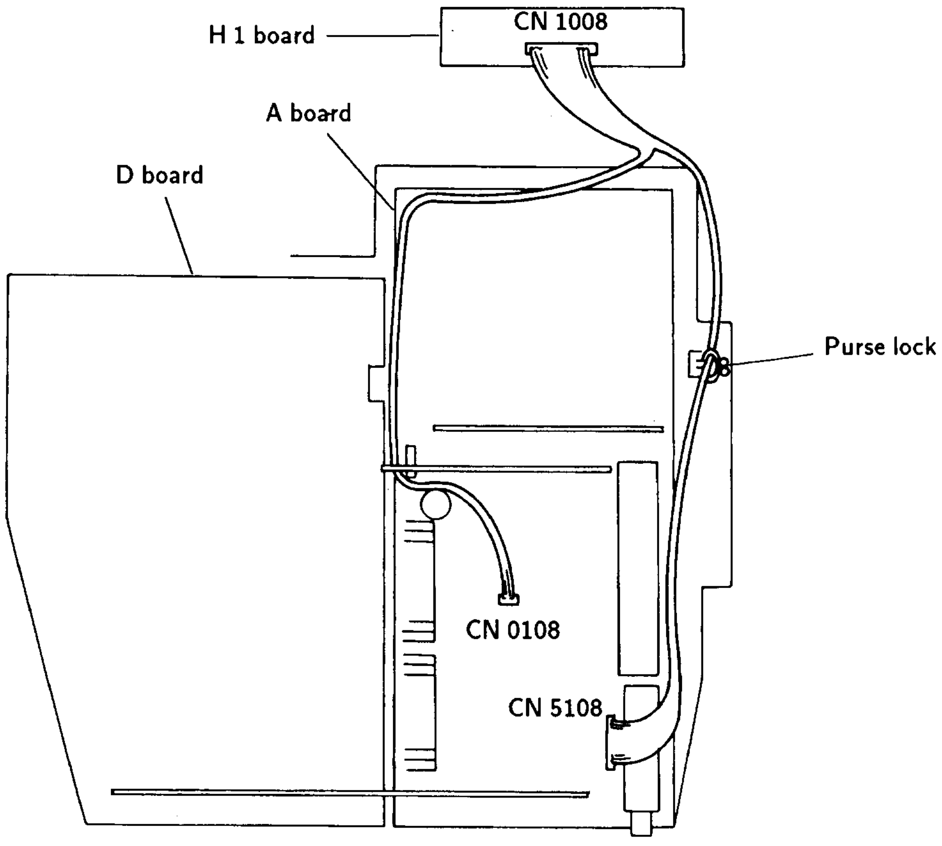

② Two claws
① J bracket
③ J board

2-8-1. WIRE ROD

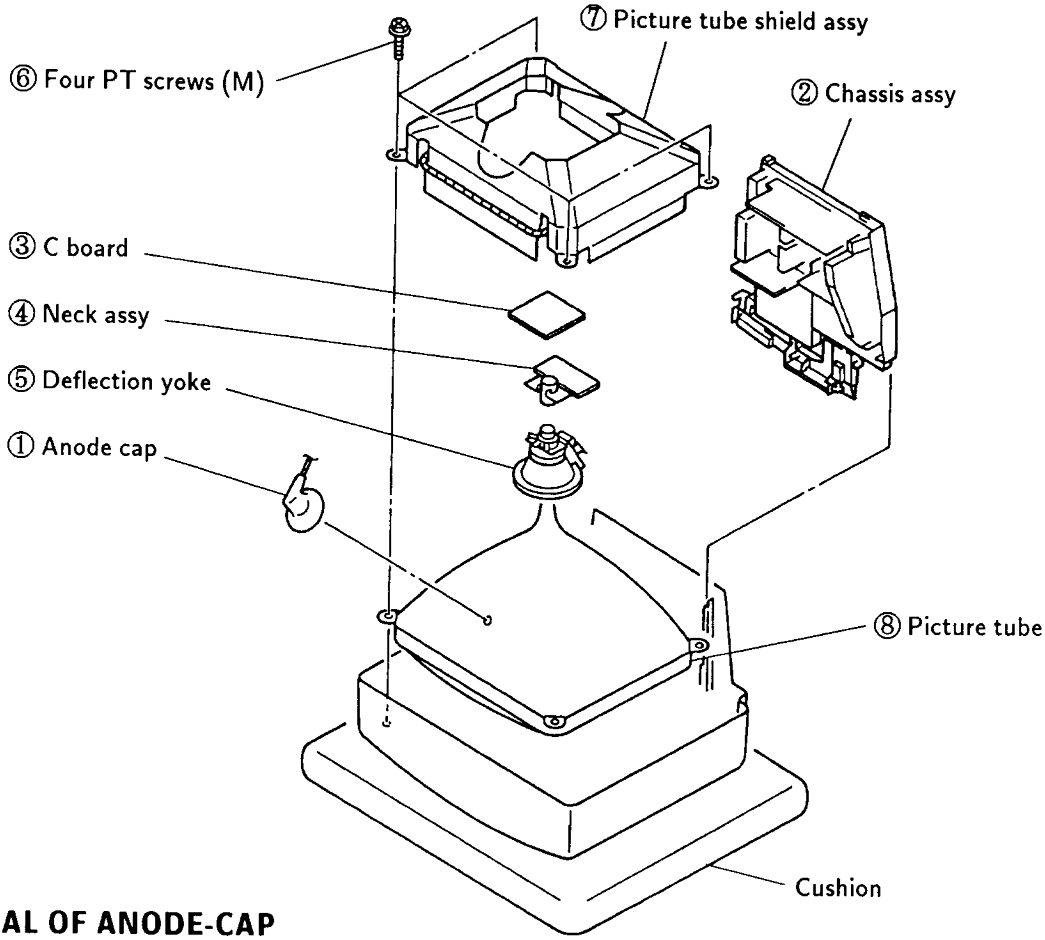
※ Keep distance between ① and ②


C board
CN 403
A board
D board
Supporter (M)
②
①
CN 0103
CN 0831
CN 0525
CN 0931
CN 0003
F 1 board
F 2 board
CN 0925
Power cord

2-8-2. WIRE ROD


H 1 board
CN 1008
A board
D board
Purse lock
CN 0108
CN 5108

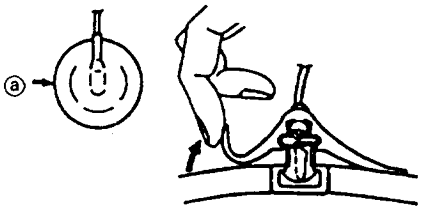
2-9. PICTURE TUBE REMOVAL


⑦ Picture tube shield assy
⑥ Four PT screws (M)
② Chassis assy
③ C board
④ Neck assy
⑤ Deflection yoke
① Anode cap
⑧ Picture tube
Cushion

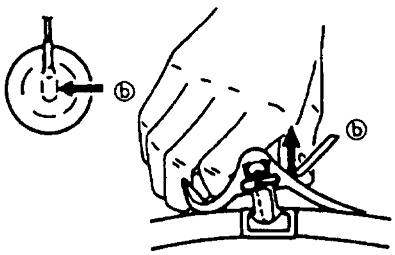
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

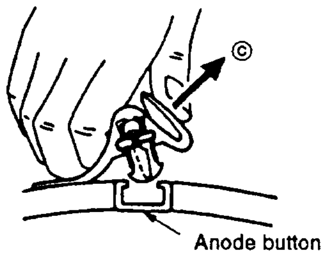
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.


ⓒ
Anode button

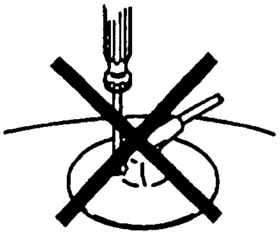
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

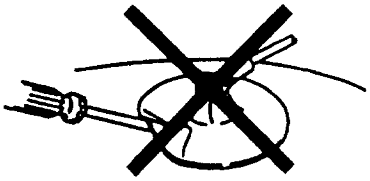
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :

◑ Contrast ························ 80% (or remote control normal)
☼ Brightness ························ 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig.3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig.3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig.3-4)

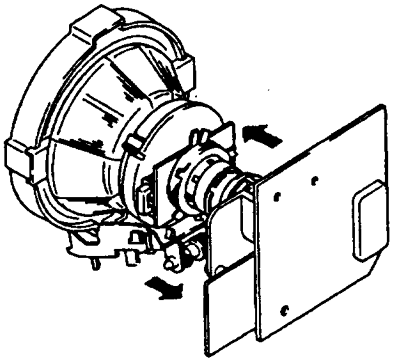


Fig.3-1

Fig.3-2

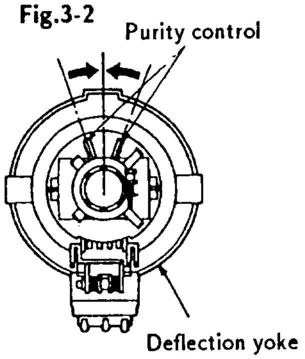
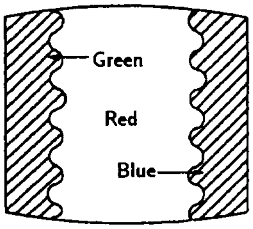

Purity control
Deflection yoke

Fig.3-3


Green
Red
Blue

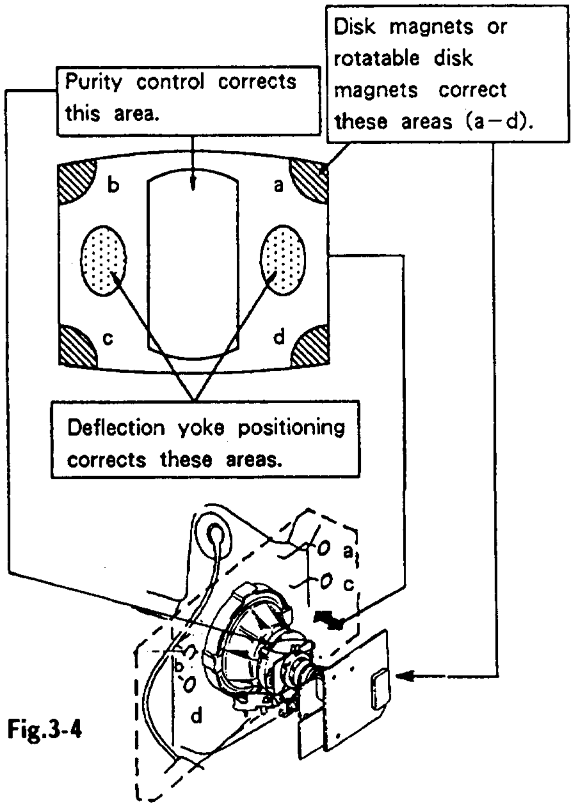

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a−d).
b
a
c
d
Deflection yoke positioning corrects these areas.
a
c
b
d

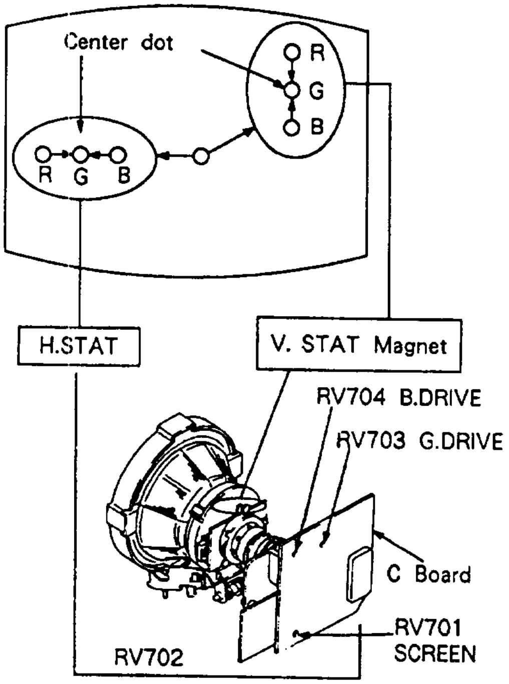
Fig.3-4

3-2. CONVERGENCE

Preparations :

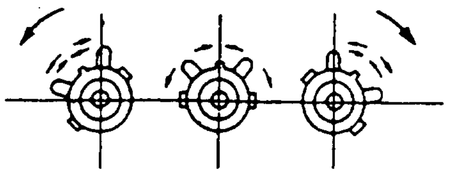
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

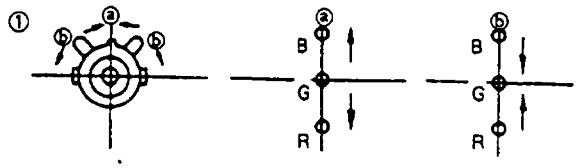

Center dot
R
G
B
R G B
H.STAT
V. STAT Magnet
RV704 B.DRIVE
RV703 G.DRIVE
C Board
RV701
SCREEN
RV702

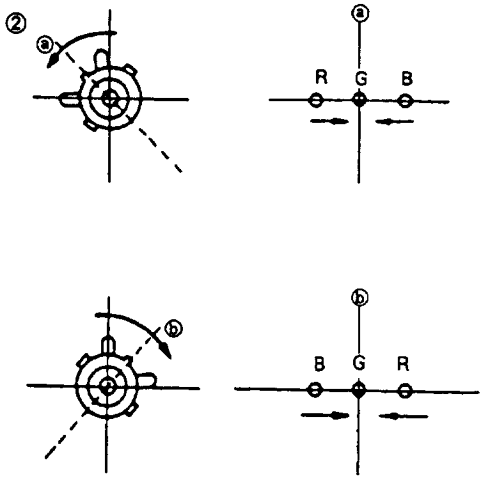
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

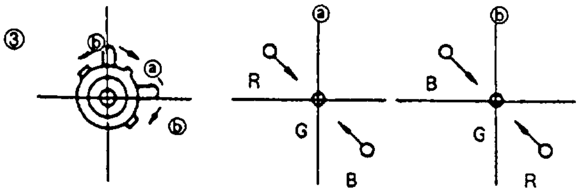
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



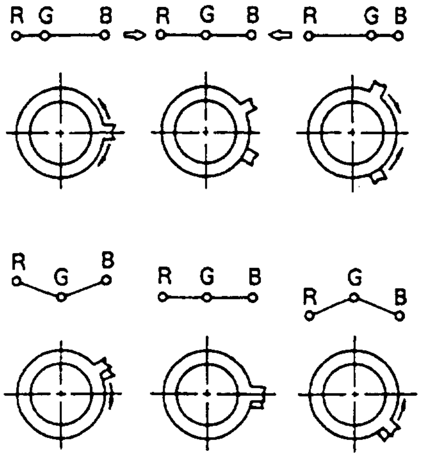
4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

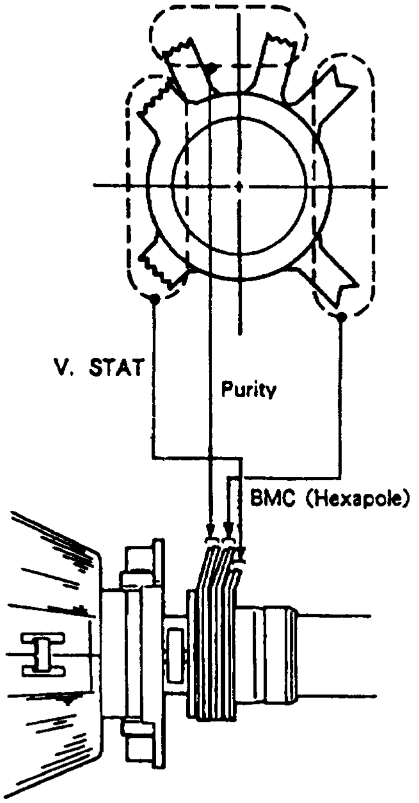






- Operation of BMC (Hexapole) Magnet


R G B
R G B
R G B
R G B
R G B
R G B


V. STAT
Purity
BMC (Hexapole)

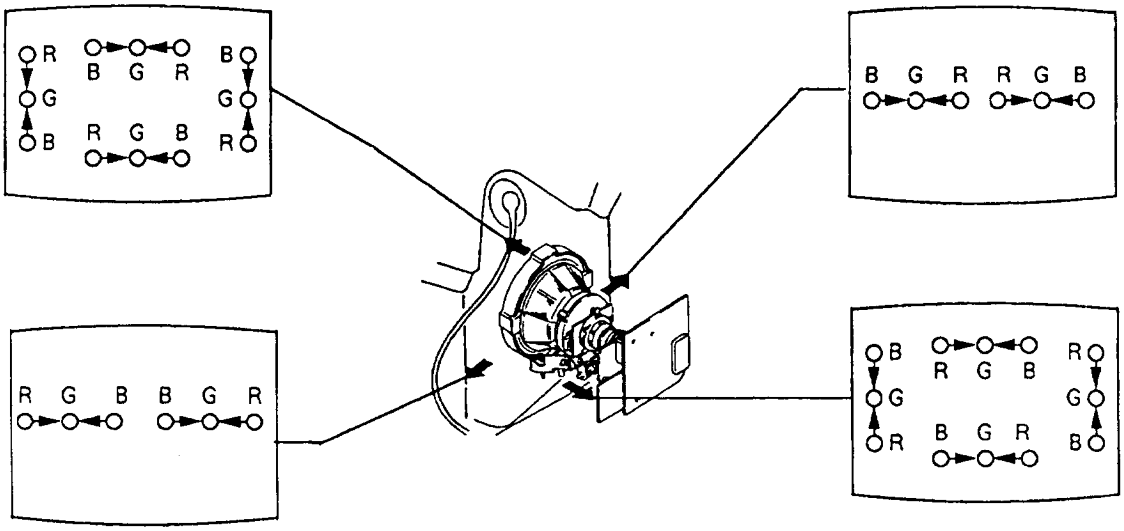
- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2)Dynamic convergence adjustment

Preparations :

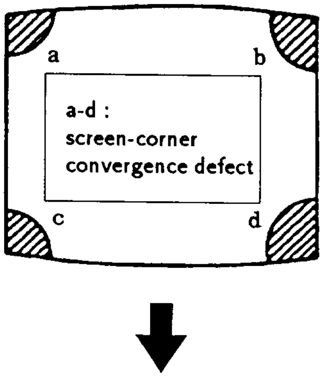
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

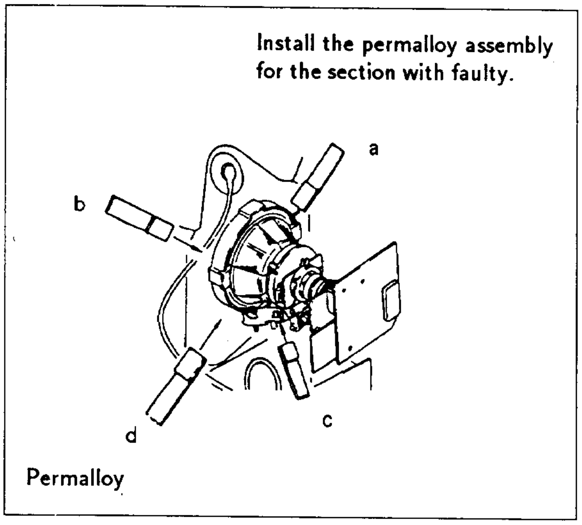
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.


R
B G R
B
G
G
B
R G B
R
B G R R G B
R G B B G R
B
R G B
R
G
G
R
B G R
B

(4) Screen corner convergence

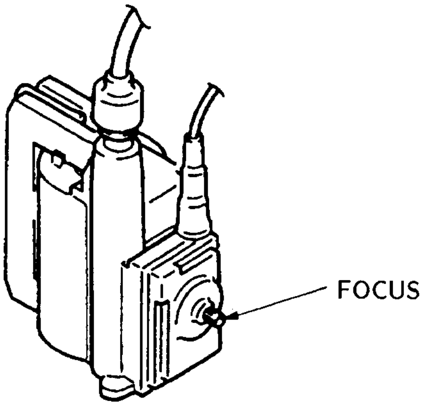
If you cannot adjust corner convergence properly, correct them with permalloy.





3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 “Electrical Adjustment” to how to enter service mode.)
3. Select CXA 1587 on menu.

09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with ▲, ▼ buttons so that the white balance becomes optimum.
6. Press OK button to write the data for each item.
7. Set picture to MIN.
8. Adjust G-AUTO CUT OFF, B-AUTO CUT OFF, R-MANUAL CUT OFF, G-MANUAL CUT OFF and B-MANUAL CUT OFF with ▲, ▼ buttons so that the white balance becomes optimum.
9. Press OK button to write the data for each item.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-830.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

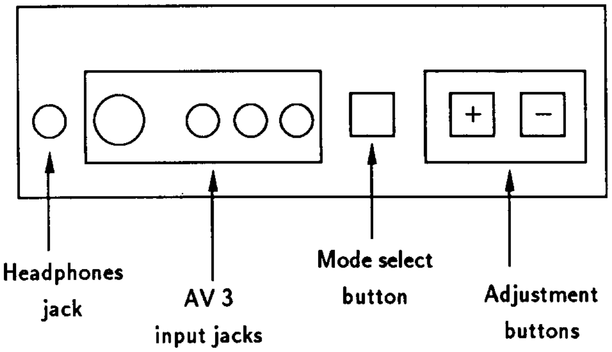


Fig.4-1

2. “TT” will appear on the upper right corner of the screen.

Command operation in service mode

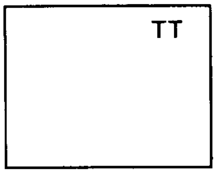


Fig.4-2

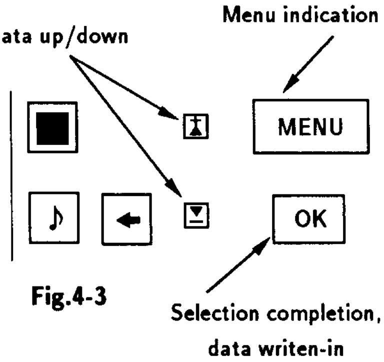

Item selection, data up/down
Menu indication
▲
▼
MENU
OK
Selection completion, data writen-in

Fig.4-3

3. Press the MENU button of the commander to get the menu on screen.

MAIN MENU
Programme Table
Video Connection
Picture Control
Sound Control
Timer
Preset
Language
> DEMO
Select < > and press OK

Fig.4-4

4. Press the ▲ and ▼ buttons of the commander and move > to DEMO.
5. Press OK button to proceed to the next menu.
6. The menu of fig.4-5 will appear on screen. Select DEVICE corresponding to the adjustment item from the table on next page.

DEVICE
Initialize
> CXA1587S
CXD 2018
TDA 9145
TDA 1526
TDA 6612
CXA 7948 A
P/P service
Select < > and press OK

Fig.4-5

7. If adjustment item is CXA1587S, press the ▼ button and move > to CXA1587S.

CXA 1587 S

	Item No.	Adjustment item	Data Amout
	01	PICTURE	3
	02	COLOR	1
	03	BRIGHT	1
	04	HUE	1
	05	SHARPNESS	7
	06	RGB PICTURE	3
	07	SUB CONTRAST	ADJ.
	08	SUB COLOR	ADJ.
>	09	SUB BRIGHT	ADJ.
	10	SUB HUE	7
	11	VM LEVEL	2
	12	NR LEVEL	0
	13	ABL MODE	0
	14	G-DRIVE	ADJ.
	15	B-DRIVE	ADJ.

8. Press OK button to get the next selection menu.
9. Press ▼ button and move > to the adjustment item and press OK button.
10. Press the ▲ and ▼ buttons to change the data in order to comply each standard.
11. Press OK button to write data.
12. Turn off the power to quit service mode when completing the adjustment.

CXA 1587 S

01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	13
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	0
22	DC TRANSFER RATIO	3
23	DINAMIC PICTURE	0
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	0
27	Y DELAY SWITCH 2	1
28	SHARPNESS LIMIT	ON
29	ALL BLK	OFF
30	H SHIFT	32
31	DAC TEST	ON
32	PRE/OVER SHOOT	7
33	SHARPNESS FO	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF
38	AGING 1	OFF
39	AGING 2	OFF
40	AKB OFF	ON
41	INHIBIT RGB	OFF
42	FORCED RGB	OFF
43	V/2 V	OFF
44	AXIS	PAL
45	HUE SW	OFF
46	V EXTENTION	OFF
47	AFC 1	1
48	AFC 2	0
49	AFC OFF	ON
50	REF.POSITION	0

CXD 2018 Q

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

Typical Value (OSD based)when receiving PAL Philips pattern.

TDA 6612	ADJ.
Stereo-Separation	(30)

Should be adjusted twice 4 : 3 and 16 : 9 mode.

Y FILTER ADJUSTMENT

1. Input PAL RED pattern.
2. Connect an oscilloscope to CN 0403 ① pin (R OUT) on the C board.
3. Enter into service mode and press 3, 8.
4. Adjust data by △ or ▽ to minimize the chroma element of CN 0403 ① pin.

SUB BRIGHTNESS ADJUSTMENT

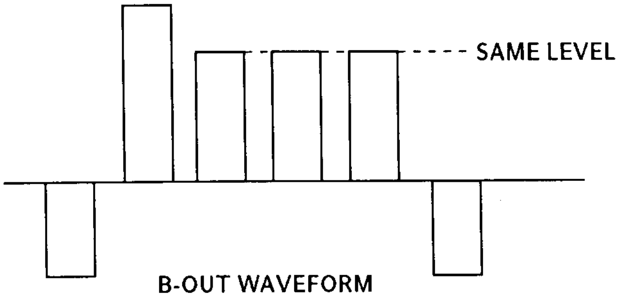
1. Input Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of the grey scale and CUT -OFF 20-IRE glitter slightly.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains small 100% area on the Black Back ground.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Adjust data so that 2.5 Vp-p can be obtained at ① CN 0403 (R out).

SUB COLOR ADJUSTMENT

1. Input PAL color bar.
2. Connect an oscilloscope to CN 0403 ③ pin (B OUT) on the C board.
3. Enter into service mode and press 22 of CXA1587S, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform will be the same.



B-OUT WAVEFORM

STEREO-SEPARATION ADJUSTMENT

1. Input 1 kHz stereo signal to the L-ch and 400 Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound does not leak to the R-ch and the L-ch.

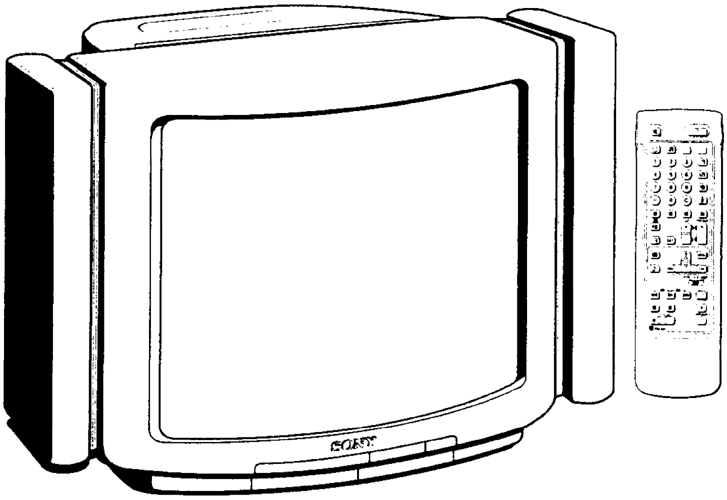
DRIVE AND CUT OFF

See direct test mode list attached and refer to sub brightness or such for adjustment method.

SERVICE MANUAL

AE-2F CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-E2961A	RM-831	Italian	SCC-G76A-A
KV-E2961B	RM-831	French	SCC-G75A-A
KV-E2961D	RM-831	AEP	SCC-G72A-A
KV-E2963E	RM-831	Spanish	SCC-G78A-A
KV-E2961K	RM-831	OIRT	SCC-G95B-A



Super **Trinitron**

MICROFILM

TRINITRON® COLOUR TV

SONY®

Specifications

S1 [illegible] ST S2

ITEM MODEL	Television system	Stereo system	Channel coverage	Color system
Italian	B/G/H,D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF:21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10,U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL,SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H,D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F69 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10,U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL,SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H,D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10,U1-U10 ITALIA VHA:A-H12 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL,SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H,D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10,U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL,SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF;R1-R12 UHF:R21-R60	PAL, SECAM NTSC 4.43, NTSC 3.58 (VIDEO IN)

MODEL	Italian	French	AEP	Spanish	OIRT
Power consumption	140 W	143 Wh	155 W	155 W	155 W

Picture tube	Super Trinitron Approx. 72 cm (29 inches) (Approx. 68 cm picture measured diagonally) 110° -deflection

[REAR]

-⊖ 1 21-pin Euro connector
(CENELEC standard)
Inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

⊖- 2/-● 2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals

(selectable)

⊖- 4/-● 4 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals

(monitor out)

-● 2, -● 4 S video inputs
- 4 pin DIN

-⊖ Audio inputs (L, R) -phono jacks
●- S video output - 4 pin DIN
⊖- Audio outputs - phono jacks
⊖- Audio outputs (variable) - phono jacks
External speaker terminals: 2 pin
Woofer terminal : 2-pin

[FRONT]

-⊖ 3 Video input-phono jack
-⊖ Audio input-phono jacks
-● 3 S video input 4-pin DIN
∩ Headphone jack: Stereo minijack

Sound output	2x15W Side Speakers (RMS) 25W Woofer (RMS) 2x35W Side Speaker (Music)
Dimensions incl.speakers	Approx. 802x624x525 mm
Weight	Approx. 55.0 kg
Supplied accessories	RM-831 Remote Commander (1) RM-860 Roller Commander (1) IEC designation R6 batteries (2)
Other features	NICAM, FASTEXT Programmable commander NICAM/GERMAN FASTTEXT

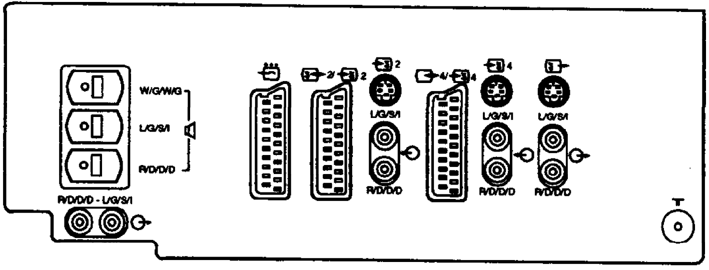
[RM-831]

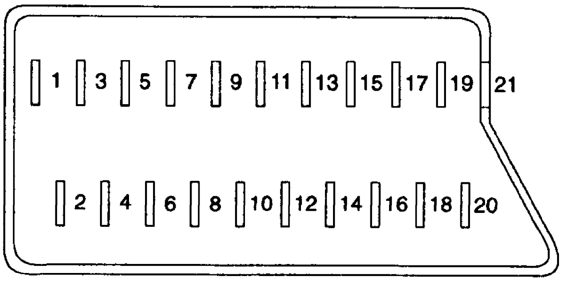
Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimentions	Approx. 65x222x21 mm (w/h/d)
Weight	Approx. 157g (Not including Batteries)

Design and specifications are subject to change without notice.

Model name / Item	KV-E2961A	KV-E2961B	KV-E2961D	KV-E2963E	KV-E2961K
Pal Comb	ON	ON	ON	ON	ON
PiP	ON	ON	ON	ON	ON
RGB Priority	ON	ON	OFF	OFF	OFF
Woofer Box	ON	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON
Scart 4	ON	ON	ON	ON	ON
Dyn. Convergence	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	ON
Norm D/K	ON	ON	ON	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF
Language Preset	Italiano	Francais	Deutsch	None	English

21 pin connector (-⊖1 ⊖2 / ⊖4)





Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance:less than 1kohm*
2	○	○	Audio input B (right)	Standard level:0.5Vrms Input impedance:More than 10kohms*
3	○	○	Audio output A (left)	Standard level:0.5Vrms Output impedance:less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level:0.5Vrms Input impedance:More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5—12V):Part mode Low state (0—2V):TV mode Input impedance:More than 10kohms Input capacitance:Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal:0.7V±3dB. 75ohms, positive
12	○	○	Open	
13	○	○	Ground(red)	
14	○	○	Ground (blanking)	
15	○	—	Red input	0.7V±3dB, 75ohms, positive
	—	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1—3V) Low state (0—0.4V) Input impedance:75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync:0.3V(−3, +10dB)
20	○	—	Video input	1V±3dB, 75ohms, positive Sync:0.3V(−3, +10dB)
	—	○	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync:0.3V(−3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open) * At 20 Hz—20kHz

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

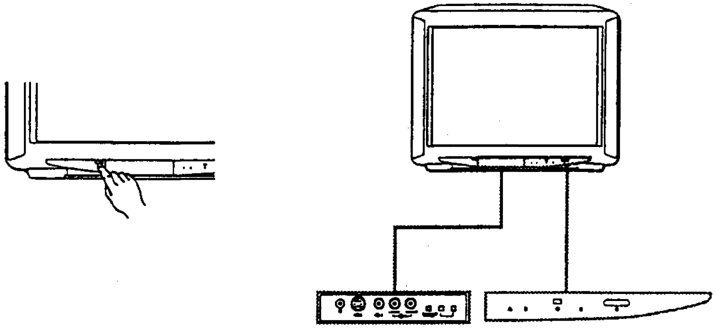
Overview

SECTION 1
GENERAL

The operating instructions mentioned here are partical abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

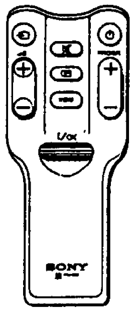
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set-front

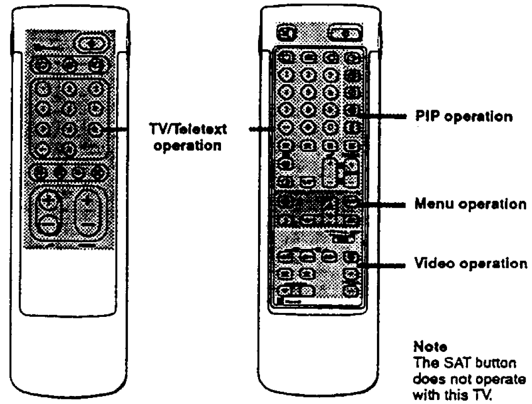


Symbol	Name	Refer to page
h	Main power switch	13
i	Standby indicator	13
A-g -B	Stereo A/B indicators	15
J	Headphones jack	23
y 3, z 3, p 3,	Input jacks (S video/video/audio)	23
P→l →z	Function selector (Programme/volume/input)	13
–/+	Adjustment buttons for function selector	13

Roller Commander RM-860



Remote commander RM-831



Simple side

Full-Function side

Note
The SAT button does not operate with this TV.

TV/Teletext operation

Symbol	Name	Refer to page
u	Muting on/off button	14
i	Standby button	13
x	TV power on/TV mode selector button	13
Ā	Teletext button	14
z	Input mode selector	14
h	Output mode selector	24
1,2,3,4,5,6, 7,8,9 and 0	Number buttons	13
-/--	Double-digit entering button	13
C	Direct channel entering button	12
l +/-	Volume control button	13
PROGR+/-	Programme selectors	13
q r	Teletext page access buttons	20
n	Picture adjustment button	15
ó	Sound adjustment button	15
G	On-screen display button	14
ā	Teletext hold button	20
⌀	Time display button	14
■■■■	Fastext buttons	20

PIP (Picture-in-Picture) operation

Symbol	Name	Refer to page
ó	PIP on/off button	18
↑	PIP source selector	18
n	Swap button	18
m	PIP position changing button	18

Menu operation

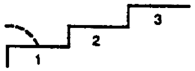
Symbol	Name	Refer to page
MENU	Menu on/off button	7
o+/s–	Select buttons	7
OK	OK (confirming) button	7
←	Back button	7
y/OK	Roller Commander: Roller to select/confirm menu functions	7

Video operation

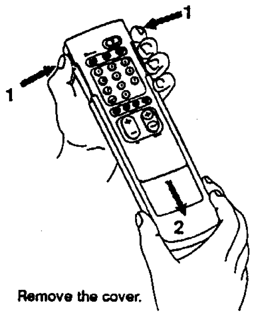
Symbol	Name	Refer to page
VTR 1/2/3, MDP	Video equipment selector	25
q q œ œ ■ ll ● i PROGR +/-	Video equipment operation buttons	25

Getting Started

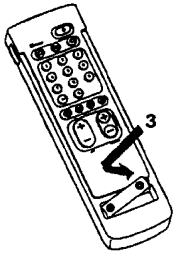
Step 1 – Preparation



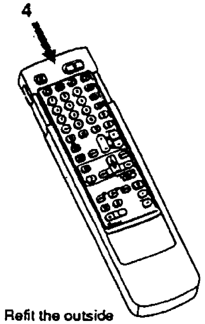
Insert the batteries into the Remote Commanders



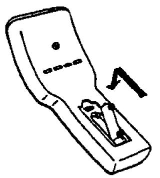
Remove the cover.



Check the correct polarities.

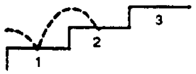


Refit the outside cover making sure that the Full-Function side is visible to use the menu in Step 3.

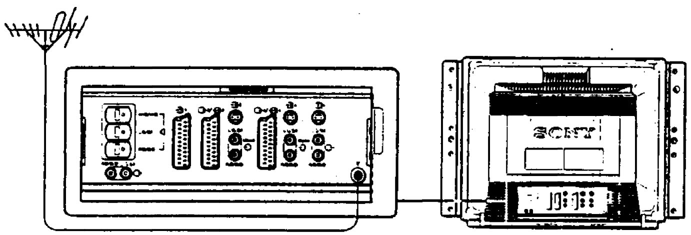


Check the correct polarities.

Step 2 – Connection

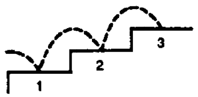


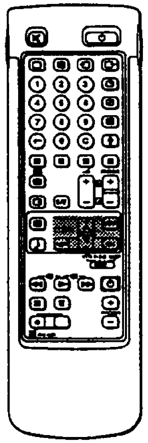
Connect the aerial



Fit an IEC aerial connector attached to 75-ohm coaxial cable (not supplied) to the 𝚃 socket at the rear of the TV.

Step 3 – Tuning in to TV Stations





Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

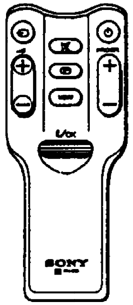
The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

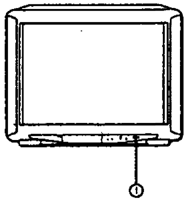
Before you begin

- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

Easy Menu operation using the Roller Commander

In addition to your double-sided Remote Commander your TV set is supplied with an extra Remote commander. This Roller Commander works with a roller for convenient, fast-access operation of the Menu functions. Move the roller upwards to move the cursor upwards, move the roller downwards to move the cursor downwards, press the roller to confirm a selection. The other buttons on this commander have the same function as the respective buttons on the double-sided Remote Commander.





❶ Choose a language

1 Depress ⏻ on the TV.
The TV will switch on. If the standby indicator on the TV is lit, press × or a number button on the Remote Commander.

2 Press the MENU button.
The LANGUAGE menu appears. (See Fig. 1.)

MENU

3 Select the language you want with ⌃+ or ⌄– and press OK.

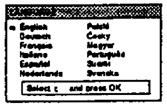

LANGUAGE
English
Deutsch
Français
Italiano
Español
Nederlands
Polski
Česky
Magyar
Português
Suomi
Svenska
Select ⇕ and press OK

Fig. 1.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Note on the DEMO function
If you choose »Demo« on the main menu, you can see a sequential demonstration on the menu functions.
Press MENU to stop the function.

❷ Display the Menu

Press the ← button.
The main menu appears. (See Fig. 2.)

Now, choose one of the following methods
»Preset Channels Automatically«
or
»Preset Channels Manually«.

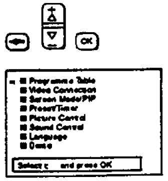

+
–
OK
Programme Table
Video Connection
Screen Mode/PIP
Preset/Timer
Picture Control
Sound Control
Language
Demo
Select ⇕ and press OK

Fig. 2.

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting
Press ← on the Remote Commander.

Notes
- After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see »Using the Programme Table« on page 17.
- You can sort the programme positions to have them appear on screen in the order you like. For details, see »Sorting Programme Positions« on page 10.

Note
Programme names are automatically taken from Teletext if available. If not, please refer to page 11 »Captioning a Station name« for more information.

❸ Preset channels automatically

1 Select »Preset/Timer« with o + or s – and press OK.
The PRESET/TIMER menu appears. (See Fig. 3.)

2 Select »Auto Programme« with o + or s – and press OK.
The AUTO PROGRAMME menu appears. (See Fig. 4.)

3 Press OK repeatedly until the first element of the »PROG« number is highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with o + or s – or the number buttons (e.g. For »04«, select »0« here) and press OK.
The second element of »PROG« will be highlighted.

5 Select the second element of the double-digit number with o + or s – or the number buttons (e.g. For »04«, select »4« here) (See Fig. 5.) and press OK.

6 Press OK. The automatic channel presetting starts.

When presetting is finished, the preset menu reappears. All available channels are now stored on successive number buttons.

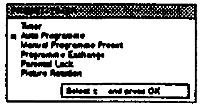


Fig. 3.

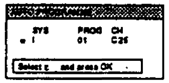


Fig. 4.

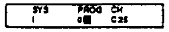


Fig. 5.

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.

If you have made a mistake
Press ← to go back to the previous position.
To go back to main menu
Keep pressing ←.
To go back to the normal TV picture
Press MENU.

❸ Preset channels manually

1 Select »Preset/Timer« with o + or s – and press OK.
The PRESET/TIMER menu appears. (See Fig. 6.)

2 Select »Manual Programme Preset« with o + or s – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 7.)

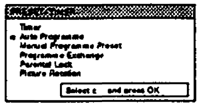
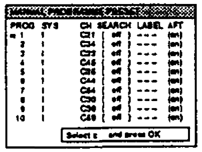


Fig. 6.



MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
1	I	C21	(off)	----	(on)
2	I	C24	(off)	----	(on)
3	I	C22	(off)	----	(on)
4	I	C45	(off)	----	(on)
5	I	C26	(off)	----	(on)
6	I	C44	(off)	----	(on)
7	I	C34	(off)	----	(on)
8	I	C30	(off)	----	(on)
9	I	C36	(off)	----	(on)
10	I	C49	(off)	----	(on)

Select and press OK

Fig. 7.

To tune in a channel by frequency
After selecting F in step 6, enter three digits using the number buttons.

3 Using o + or s –, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Select if necessary, a video input source (EXT) with o + or s –.

5 Then press OK. The CH position will be highlighted.
(See Fig. 8.)

6 Using o + or s –, select C (to preset a regular channel) or F (to tune in by frequency) and press OK.
The first element of the »CH« number will be highlighted.
If you have selected EXT in step 4, select the video input source with o + or s –. (See Fig. 9.)

There are two ways to preset channels. If you know the channel number, go to step »7-Manual«,

or

if you don't know the channel number, go to step »7-Search«.

7 *Manual*

-a Select the first element of the »CH« number with o + or s – or the number buttons and press OK.
The second element of the »CH« number will be highlighted.

-b Select the second element of the number with o + or s – or the number buttons.
The selected number appears. (See Fig. 10.)

-c Press OK.
The »SEARCH« position is highlighted and the selected channel is now stored. (See Fig. 11.)

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

If you have made a mistake
Press ← to go back to the previous position.
To go back to main menu
Keep pressing ←.
To go back to the normal TV picture
Press MENU.

7 *Search*

-a Press OK repeatedly until the colour of the SEARCH position changes.

-b Start searching for the channel with o + (up) or s – (down).
The CH position changes colour. (See Fig. 12.)
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)

-c Press OK if you want to store this channel. If not, press o + or s – to continue channel searching.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

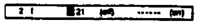


Fig. 8.

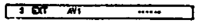


Fig. 9.

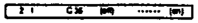


Fig. 10.

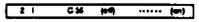


Fig. 11.

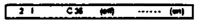


Fig. 12.

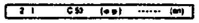
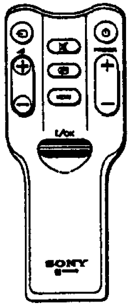
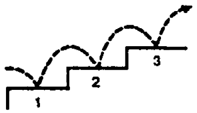


Fig. 13.



Additional Presetting Functions

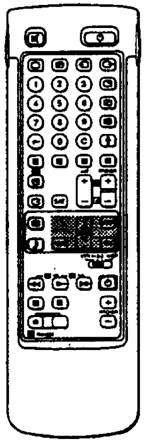


This section shows you additional presetting functions such as sorting or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible.
- Locate the Menu operation buttons.

PROGRAMME SORTING



Sorting Programme Positions

With this function, you can sort the programme positions to a preferable order.

1 Press MENU to display the main menu.

2 Select »Preset/Timer« with o + or s – and press OK.
The PRESET/TIMER menu appears.

3 Select »Programme Sorting« with o + or s – and press OK.
The PROGRAMME SORTING menu appears. (See Fig. 14.)

4 Using o + or s –, select the programme position which you want to move to another and press OK.
The colour of the selected position changes. (See Fig. 15.)

5 Using o + or s –, select the programme position to which you want to move the channel of the programme position selected in step 4 and press OK. Now the programme positions have been sorted. (See Fig. 16.)

6 Repeat steps 4 and 5 to sort other programme positions.

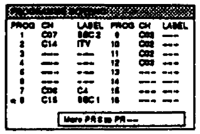


Fig. 14.

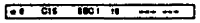


Fig. 15.

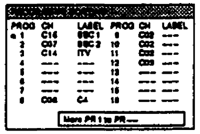


Fig. 16.

PICTURE ROTATION

For higher programme positions
The display scrolls automatically.

If you have made a mistake
Press ← to go back to the previous position.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

How to adjust the Picture Rotation

If due to the earth magnetism the picture »slants«, you can use the function »Picture Rotation« to readjust the picture.

1 Press MENU to display the main menu.

2 Select »Preset/Timer« with o + or s – and press OK.
The PRESET/TIMER menu appears.

3 Select »Picture Rotation« with o + or s – and press OK.
The PICTURE ROTATION menu appears. (See Fig. 17.)

4 Press OK. Adjust the picture rotation with o + or s – until you have an upright picture. As you press the cursor buttons, the range changes from –2 to +2.

5 Press OK to store the adjustment.

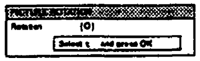


Fig. 17.

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/– buttons. However, the skipped programmes may still be called up when you use the number buttons.

1 Press MENU to display the main menu.

2 Select »Preset/Timer« with o + or s – and press OK.
The PRESET/TIMER menu appears.

3 Select »Manual Programme Preset« with o + or s – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 18.)

4 Using o + or s –, select the programme position which you want to skip and press OK.
The »SYS« position changes colour.

5 Press o + or s – until »– – – –« appears in the SYSTEM position.
(See Fig. 19.)

6 Press OK. (See Fig. 20.)
When you select programmes using the PROGR +/– buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.

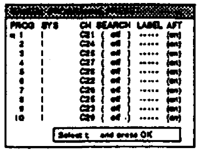


Fig. 18.

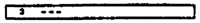


Fig. 19.

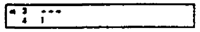


Fig. 20.

MANUAL PROGRAMME PRESET

If you have made a mistake
Press ← to go back to the previous position.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Captioning a Station Name

Programme names are usually automatically taken from Teletext if available. You can also »name« a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select »Preset« with o + or s – and press OK.
The PRESET menu appears.

3 Select »Manual Programme Preset« with o + or s – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 21.)

4 Using o + or s –, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with o + or s – and press OK.
The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 22.)

6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 23.)

7 Repeat steps 5 and 6 to caption names for other channels.

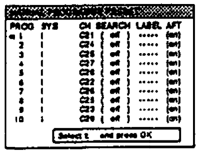


Fig. 21.

Fig. 22.

Fig. 23.

MANUAL PROGRAMME PRESET

Manual Fine-Tuning

Normally, the AFT (automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

1 Press MENU to display the main menu.

2 Select »Preset/Timer« with o + or s – and press OK.
The PRESET/TIMER menu appears.

3 Select »Manual Programme Preset« with o + or s – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 24.)

4 Using o + or s –, select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.

5 Fine-tune the channel with o + or s – so that you get the best TV reception. As you press the cursor buttons, the frequency changes from – 15 to + 15. (See Fig. 25.)

6 After fine tuning, press OK.
The cursor appears beside the next programme position (at the left margin). (See Fig. 26.) Now the fine-tuned level is stored.

7 Repeat steps 4 to 6 to fine-tune other channels.

To reactivate AFT (automatic fine tuning)
Repeat from the beginning and select »ON« in step 5.

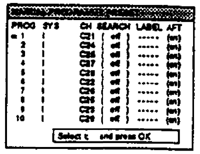


Fig. 24.

Fig. 25.

2 I C24 (off) ----- (-3)
3 I C26 (off) ----- (on)

Fig. 26.

PARENTAL LOCK

Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1 Press MENU to display the main menu.

2 Select »Preset« with o + or s – and press OK.
The PRESET menu appears.

3 Select »Parental Lock« with o + or s – and press OK.
The PARENTAL LOCK menu appears. (See Fig. 27.)

4 Using o + or s –, select the programme position you want to block and press OK.
The CH and LABEL change colour indicating that this programme is now blocked. (See Fig. 28.)

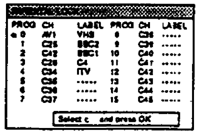
5 Repeat step 4 to block other programme positions.

Cancelling blocking

1 On the PARENTAL LOCK menu, select the programme position you want to unblock with o + or s –.

2 Press OK.
The CH and LABEL change colour to normal colour indicating that the blocking has been cancelled.

If you try to select a programme that has been blocked
The message »LOCKED« appears on the blank TV screen.



PROG	CH	LABEL	PROG	CH	LABEL
● 0	AV1	VHS	8	C38	-----
1	C25	BBC2	9	C39	-----
2	C42	BBC1	10	C40	-----
3	C28	C4	11	C41	-----
4	C34	ITV	12	C42	-----
5	C35	-----	13	C43	-----
6	C36	-----	14	C44	-----
7	C37	-----	15	C45	-----

Select ↕ and press OK

Fig. 27.

PROG	CH	LABEL	PROG	CH	LABEL
● 0	AV1	VHS			
1	C25	BBC2			
2	C42	BBC1			
3	C28	C4			

Fig. 28.

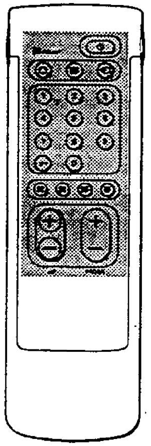
Tuning in a Channel Temporarily

You can tune in a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

1 Press C on the Remote Commander.
The indication »C« appears on the screen.

2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

Watching the TV



If no picture appears when you depress h on the TV
and if the standby indicator on the TV is lit, the TV is in standby mode. Press x or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

Switching the TV on and off

Switching on

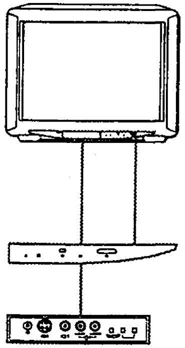
Depress h on the TV.

Switching off temporarily

Press i on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.
To switch on again
Press x , PROGR +/–, or one of the number buttons on the Remote Commander.

Switching off completely

Depress h on the TV.



Selecting TV Programmes

Press PROGR +/- or press number buttons.

To select a double-digit number

Press -/- -, then the numbers.
For example, if you want to choose 23, press -/- -, 2 and 3.

Adjusting the Volume

Press 1 +/–.

Operating the TV Using the Buttons on the TV

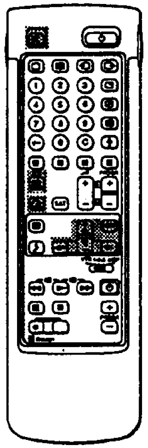
With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

- Press P→1 →z button repeatedly until the programme number, 1 (for volume), or z (for video input picture) appears. Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET function).

Watching Teletext or Video Input

For details of the teletext operation, refer to page 20.

For details of the video input picture, refer to page 24.



Watching teletext

- Press Ā to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press q (PAGE +) or r (PAGE –) for the next or preceding page.
- To go back to the normal TV picture, press x .

Watching a video input picture

Press z repeatedly until the desired video input appears. To go back to the normal TV picture, press x .

More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

- Press G once to display all the indications. They will disappear after some seconds.
  Press G twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound

- Press u .
  To resume normal sound, press u again.

Displaying the time

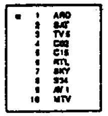
- Press x . This function is available only when teletext is broadcast.
  To make the time display disappear, press x again.

Displaying of the Programme Table

Press OK. A Programme Table will be displayed on the right side of the TV screen (See. Fig. 29.)

Selecting of TV programmes
Press PROGR +/– or select the desired programme position using o + or s – and press OK.

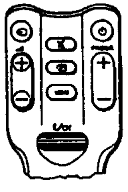
To make the Programme Table disappear
Press MENU.

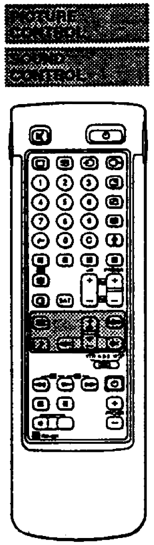


●	1	ARD
	2	SAT
	3	TV5
	4	CH2
	5	C15
	6	RTL
	7	SKY
	8	S34
	9	AV1
	10	MTV

Fig. 29.

Adjusting and Setting the TV Using the Menu





Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can set the resolution to obtain a higher quality picture or reduce the picture noise. You can also select dual sound (bilingual) programmes when available, adjust the sound for listening with the headphones (J) or individually adjust and store the volume level of each channel (Volume offset). Also you have the possibility to adjust the sound to your individual taste using the Graphic Equalizer and special Sound effects.

1 Press n (for picture) or δ (for sound) on the Remote Commander.

or

Press MENU and select »Picture Control« or »Sound Control«, then press OK.
The PICTURE CONTROL or SOUND CONTROL menu appears. (See Fig. 29 or Fig. 30.)

2 Using o + or s –; select the item you want to adjust and press OK. The selected item changes colour. (See Fig. 31.)

3 Adjust the setting with o + or s – and press OK.
The cursor appears beside the next item (at the left margin). (See Fig. 32.)
For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.

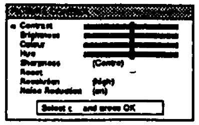


Fig. 30.

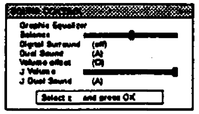


Fig. 31.

Brightness

Fig. 32.

Brightness
Colour

Fig. 33.

If you have made a mistake
Press ← to go back to the previous position.

To go back to the main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Note:
HUE is only available for NTSC colour system and RESOLUTION does not work for SECAM colour system.

Note on LINE OUT
The audio level and the dual sound mode output from the £ jack on the rear correspond to the Headphone VOLUME and DUAL SOUND settings.

When watching video input picture
You can select DUAL SOUND to change the sound.

Effect of each control

PICTURE CONTROL	Effect	
Contrast	Less —+— More	
Brightness	Darker —+— Brighter	
Colour	Less —+— More	
Hue	Greenish —+— Reddish	
Sharpness	Min. – Centre – Max.	
Reset	Resets picture to the factory preset levels	
Resolution	off: Normal	High: Obtain a higher picture quality
Noise Reduction	off: Normal	on: Reduction of picture noise in case of weak signals

SOUND CONTROL	Effect			
Graphic Equalizer	(See page 16 for more information)			
Balance	More left —+— More right			
Digital Surround	off: Normal	Choice between special sound effects: Dome, Hall, Arena, Simulated (gives width to a monaural source)		
Dual Sound	A: left channel	B: right channel	stereo	mono
	The selected mode of The A-g -B indicator on the TV lights up (for NICAM broadcasts see next page)			
Volume offset	–4 Less 0 More +4			
Headphones:				
J Volume	Less —+— More			
J Dual Sound	A: left channel	B: right channel	stereo	mono

Note:
The modifications made in »User« will be stored. All other settings are reset to the factory-set level when you change to another mode.

Graphic Equalizer

Using this function you can individually adjust the sound by cutting and boosting selected frequencies. You can also select between the following modes:
Flat → Pop → Rock → Jazz → Vocal → User

1. Select »Sound control« in the Main Menu, then select »Graphic equalizer« using o + or s – and press OK.
2. Press OK. The colour of »Mode« changes. (See Fig. 34.) Select the desired mode with o + or s –, then press OK.
3. If you want to modify a mode, select the desired bar of a frequency band using o + or s – and press OK. The selected bar changes colour. Using o + or s – adjust the level of frequency and press OK. In this way you can adjust all 5 graphic bars.
4. Press MENU to return to the normal TV mode.

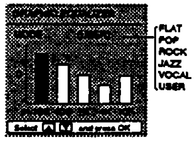


Fig. 34.

*Selecting Nicam Broadcasts**

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received, »NICAM« appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the A-g -B indicators, on the TV will switch off.

Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these by first following the instructions explained on page 15.

Service Being Broadcast	Action	Effect	Indication on the TV A-g	-B
Stereo	Press	Stereo Nicam (Mono 2-Channel)	●	●
	o + or s –	mono	▭	▭
Press o + or s – again to return to stereo Nicam (mono 2-channel)				
Bilingual	press o + or s –	Channel A Nicam	●	▭
		Channel B Nicam	▭	●
		mono	▭	▭
Press o + or s – again to return to channel A Nicam				

* Depending on availability of service.

PROGRAMME TABLE

Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

From the main menu, select »Programme Table« with o + or s – and press OK.
The PROGRAMME TABLE menu appears. (See Fig. 35.)

To scroll to higher programme numbers, press o + or s –.

To select a programme using this menu
Select the programme number with o + or s – and press OK.
The selected programme appears.

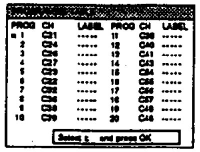


Fig. 35.

TIMER

To go back to the normal TV picture
Press MENU.

To switch off the timer
Select »OFF« in step 3.

To check the remaining time
Press G .

Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

1 From the main menu, select »Preset/Timer« with o + or s – and press OK.
The PRESET/TIMER menu appears.

2 Using o + or s – select »Timer« and press OK.
The TIMER menu appears. (See Fig. 36.)

3 Press OK.
The time period option changes colour.

4 Select the time period with o + or s –.
The time period (in minutes) changes as follows:
10 → 20 → 30 → 40 → 50 → 60 → 70 → 80 → 90
OFF

5 After selecting the time period, press OK.
The cursor moves back to the left margin and the timer starts counting.
One minute before the TV switches into standby mode, a message is displayed on the screen.

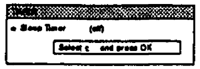
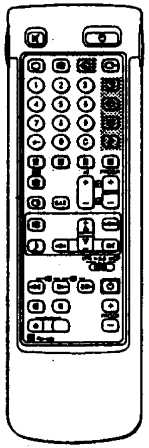


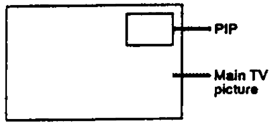
Fig. 36.

PIP (Picture-In-Picture)



Note
RGB input source cannot be displayed in PIP.

With this function you can display a »PIP screen« (small picture) within the main TV picture. In this way you can watch or monitor the video output from any connected equipment (for example from a VTR) while watching TV or vice versa. For information about connection of other equipment, refer to page 23.



Switching PIP on and off

Press ȯ .
The PIP screen will be displayed. The PIP picture will come from the source chosen when the TV was last used.

To switch PIP off
Press ȯ again.

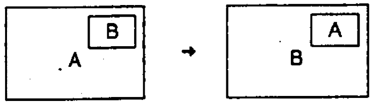
Selecting a PIP source

Press ↥.
The symbol ↥ will be displayed at the bottom, left-hand corner of the screen.
Press z repeatedly until the desired source is indicated (e.g. TV, AV 1, AV 2, YC2, AV 3, YC3, AV 4, YC 4).

Note
If no video source has been connected, the PIP picture will be noisy.

Swapping screens

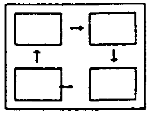
Press n .
The main screen will switch the picture with the PIP screen.

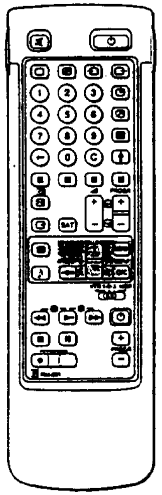


Note
If a TV programme is on the PIP screen and a video source on the main picture, and you want to change channels, first press ↥ and then the programme buttons or PROGR +/-.

Changing the position of the PIP

Press m repeatedly to change the position of the PIP screen within the main screen. There are four different positions available.





Operating Screen Mode / PIP using the Menu

Using the Screen Mode / PIP Menu you have the possibility to change the aspect ratio of the TV display for wide screen effect, operate the PIP mode, scan 9 successive TV channels on the screen (Programme Catching), display 8 successive freeze pictures (Photo mode) or reproduce the main picture image by image (strobe function).

1 Press MENU to display the main menu.

2 Select »Screen mode/PIP« with Δ + or ∇ – and press OK. The SCREEN MODE/PIP menu appears. (See Fig. 37.)

a) **Changing the Format**
Using Δ + or ∇ – select »Screen mode« and press OK. The selected item changes colour. Using Δ + or ∇ – select the desired format (4 : 3 normal ratio or 16 : 9 for wide screen effect) and press OK.

b) **Switching PIP on and off**
Using Δ + or ∇ – select »PIP« and press OK. Using Δ + or ∇ – select »on« to display the PIP screen and »off« to switch it off and press OK.

c) **Changing the position of the PIP**
Using Δ + or ∇ – select »PIP position« and press OK. Using Δ + or ∇ – repeatedly to change the position of the PIP screen and press OK.

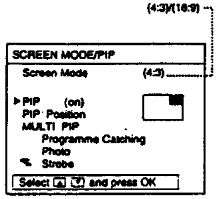
MULTI PIP functions

a) **Programme Catching**
Using Δ + or ∇ – select »Programme Catching« and press OK. Now a scan of 9 successive programmes (8 still pictures, 1 live picture where the cursor is positioned) is displayed on the TV screen starting from the programme tuned in. Using Δ + or ∇ – you can move the cursor and update the still pictures. The programme scanning starts again if you select the programme position lower or higher than the 9 displayed ones. (See Fig. 38.)

To select a Programme using the Programme Index
Using Δ + or ∇ – select the desired programme position and press OK. Now the selected programme is displayed and you are back in the normal TV mode.

b) **Photo mode**
Using Δ + or ∇ – select »Photo« and press OK. Now the main picture is displayed as a succession of 8 still pictures and a 9th picture which will be live. (See Fig. 39.) Using Δ + or ∇ – the photo mode starts again. Press OK to return to the normal TV mode.

c) **Strobe mode**
Using Δ + or ∇ – select »Strobe« and press OK. Now the TV picture is displayed image by image, which gives it the effect of slow motion. (See Fig. 40.) Using Δ + or ∇ – select the speed of the motion (3 different speeds are available). Press OK to return to normal TV mode.



(4:3)/(16:9)

SCREEN MODE/PIP
Screen Mode (4:3)
▶ PIP (on)
PIP Position
MULTI PIP
Programme Catching
Photo
Strobe
Select ▲ ▼ and press OK

FIG 37.

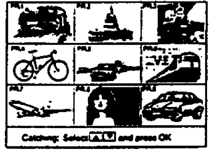


FIG 38.

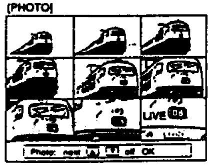


FIG 39.

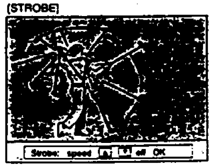
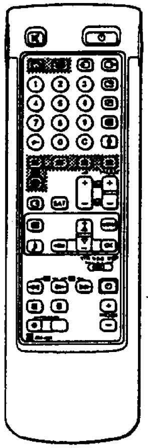


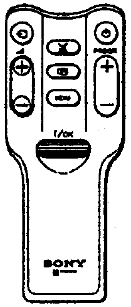
FIG 40.

Teletext



Note
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander
You can switch teletext on and off, operate Fastext, and directly select page numbers.



Note
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press Ã to switch on teletext.
A teletext page will be displayed (usually the index page).
If there is no teletext broadcast, »No text available« is displayed on the information line of the screen.

To switch teletext off
Press x .

Selecting a teletext page

With direct page selection
Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number.

With page-catching
1 Select a teletext page with a page overview (e.g. index page).
2 Press OK. »Page catching« will be displayed on the information line. The last digit if the first displayed page number flashes.
3 Using o + o s –, select the desired page and press OK.
The requested page will appear in a few seconds.
Press Ã to resum.

Accessing next or preceding page
Press q (PAGE +) or r (PAGE -).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

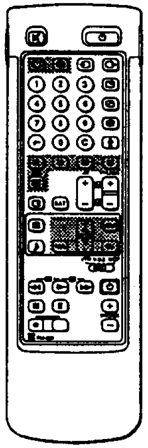
- Press Ã once in teletext mode or twice in TV mode.
- Press Ã again to resume normal teletext reception.

Preventing a teletext page from being updated

- Press ä (HOLD). The HOLD symbol » ä « displayed on the information line.
- Press Ã to resume normal teletext reception.

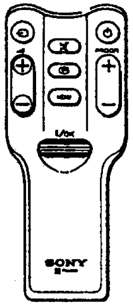
Using Fastext

With Fastext you can access pages with one key stroke.
When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.



Note
Some of the features may not be available depending on the Teletext service.

Note:
If you press OK again the right teletext page will appear on the left side of the TV screen.



To cancel the request
Select subpage and press OK.

Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched in, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 41.)

2 Using o + o s –, select the teletext function you want and press OK. (See Fig. 42.)

USER PAGES/PRESET USER PAGES

See page 22 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display with the ability to scroll up and down. After having selected the function, an information line TOP/BOTTOM/FULL will be displayed. (See Fig. 43.)

Press o + for »Top« to enlarge the upper half. Keep pressing s – for »Bottom« to enlarge the lower one. Press OK for »Full« to resume the normal size.
Press Ã to resume normal teletext reception.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be displayed. (The symbol changes colour) (See Fig. 44.)
Press Ã to view the captured page.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line »REVEAL ON/OFF« will be displayed. (See Fig. 45.)

Using o + or s –, select ON to reveal the information or OFF to conceal it again.
Press Ã to resume normal teletext reception.

TIME PAGE

This feature is not available in the U. K. .

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROGR +/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

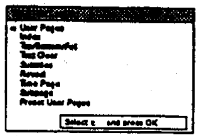


Fig. 41.

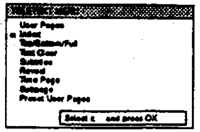


Fig. 42.

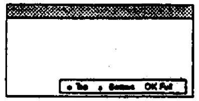


Fig. 43.

Fig. 44.

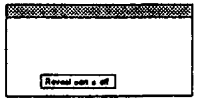


Fig. 45.

User Page Bank System

You can store up to 30 pages in the »Teletext page bank system«. In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 »banks« (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (1P to 6P).

If two broadcasting stations use the same Teletext
You can preset one bank to 2 different programme positions.

1 Press Å (if Teletext is not on already) and MENU to show the TELETEXT MENU display.

2 Select PRESET USER PAGES with o + or s – and press OK.

3 Select the desired bank with o + or s – and press OK. The cursor will go to the first position (P1) of the preferred pages.

4 Input the three digits of your first preferred page with the number buttons. The cursor will go to the second position.

5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number.

6 Select »Allocate Bank« with o + or s – and press OK.

7 Select the programme position for which you have preset pages with o + or s – and press OK. (See Fig. 46).

8 Select the desired bank with o + or s – (Banks A to E are available) and press OK.

9 Repeat steps 3 to 8 for the other 4 banks available.

Displaying User Pages

1 Select MENU.

2 Select »USER PAGES« with o + or s – and press OK. A table of the stored preferred pages will be displayed. (See Fig. 47.)

3 Select the desired page with o + o s – and press OK. The page will be displayed after some seconds.

or

You can use the coloured buttons on the Remote Commander to have quick access to the first four User pages. Page 1 corresponds to the red button, P 2 to the green one, P 3 to the yellow one and P 4 to the blue button.
To select the desired page press the respective coloured button while you are in TV mode. Now the Page number of this teletext page will appear in white at the top in the left-handed corner of the TV screen. When the page number changes colour the page is available. Press the coloured button again to display the page.

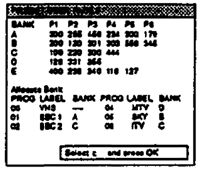


Fig. 46.

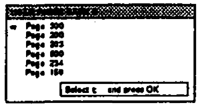
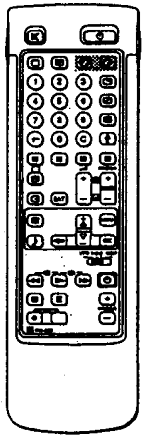
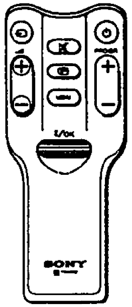


Fig. 47.

Operating Optional Equipment

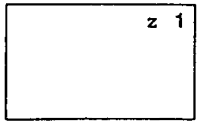
Selecting input with PROGR +/- or number buttons
You can preset video input sources to the programme positions so that you can select them with PROGR +/– or number buttons. For details, see »Preset channels manually« on page 8.





Selecting input and output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.



Selecting input

Press z repeatedly to select the input source.
The symbol of the selected input source will appear.

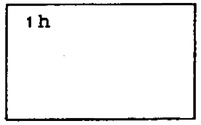
To go back to the normal TV picture
Press x .

Input modes

Symbol	Input signal
z 1	Audio/video input through the e 1 connector
1	RGB input through the e 1 connector
z 2	Audio/video input through the A 2/y 2 connector
y 2	S video input through the A 2/y 2 or y 2 connector
z 3	Audio/video input through z 3 and p on the front
y 3	S video input through the y 3 connectors on the front (4-pin connector)
z 4	Audio/video input through the A 4/y 4 connector
y 4	S video input through the A 4/y 4 or y 4 connector (4-pin connector)

You can also select the input mode using the P→1 →z and –/+ buttons on the TV.

In this case, first select z , and then press –/+ buttons to select the input.



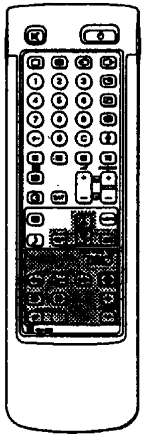
Selecting the output

The A 2/y 2 connector outputs the source input from the other connectors.

Press h repeatedly to select the output.
The symbol of the selected output source appears.

Output modes

Symbol	A 2/y 2 connector outputs
1 h	The audio/video signal from the e 1 connector
2 h	The audio/video signal from the A 2/y 2 connector
2 u	The audio/S video signal from the A 2/y connector
3 h	The audio/video signal from the z 3 and p 3 connectors
3 u	The audio/S video signal from the y 3 and p 3 connectors
4 h	The audio/video signal from the A 4/y 4 connector
4 u	The audio/S video signal from the A 4/y 4 connector
TV h	The audio/video signal from the E aerial terminal



When recording
When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen and PIP screen, and which output source is selected. You can also select them on the menu display.

1 Select »Video Connection« with o + or s – and press OK. The VIDEO CONNECTION menu appears. (See Fig. 48).
You can see which source is selected for the TV and PIP input, and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV screen (input source for the TV screen), PIP (input source for the PIP screen), or Output (output source) with o + or s – and press OK. One of the source items changes colour. (See Fig. 49.)

3 Select the desired source with o + o s –. (See Fig. 50.)
For details about each source, see the table on page 23.

4 Press OK.
The selected source is confirmed, and the cursor appears. (See Fig. 51.)

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

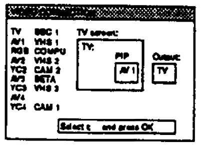


Fig. 48

TV 1 PLUS
AV1 VHS 1
TV screen:

Fig. 49

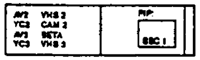


Fig. 50

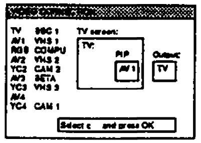


Fig. 51

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control other remote-controlled equipment. The buttons for video operation have been factory-set to control most of Sony video equipment, such as: Beta, 8mm or VHS VTRs or video disc players.

Tuning the Remote Commander to Sony equipment

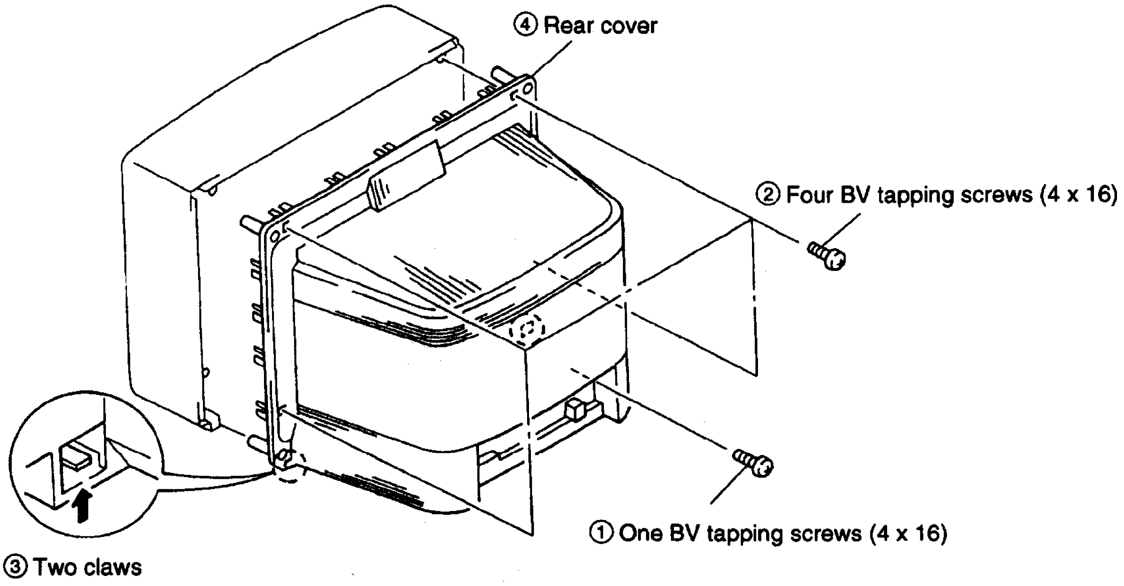
1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR
VTR 2: 8mm VTR
VTR 3: VHS VTR
MDP: Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.
If your video equipment is furnished with a COMMAND MODE selector set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

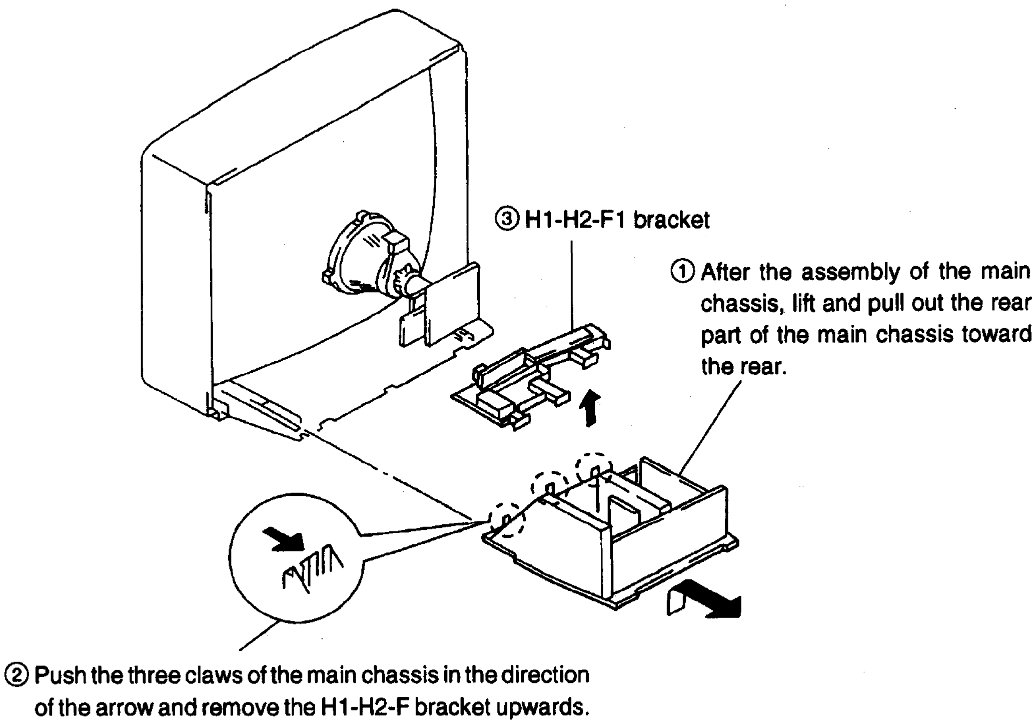
SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL

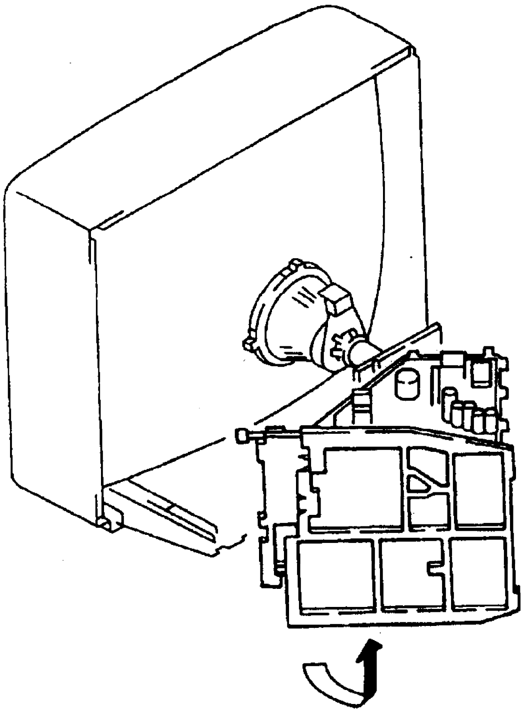

④ Rear cover
② Four BV tapping screws (4 x 16)
① One BV tapping screws (4 x 16)
③ Two claws

2-2. CHASSIS ASSY REMOVAL

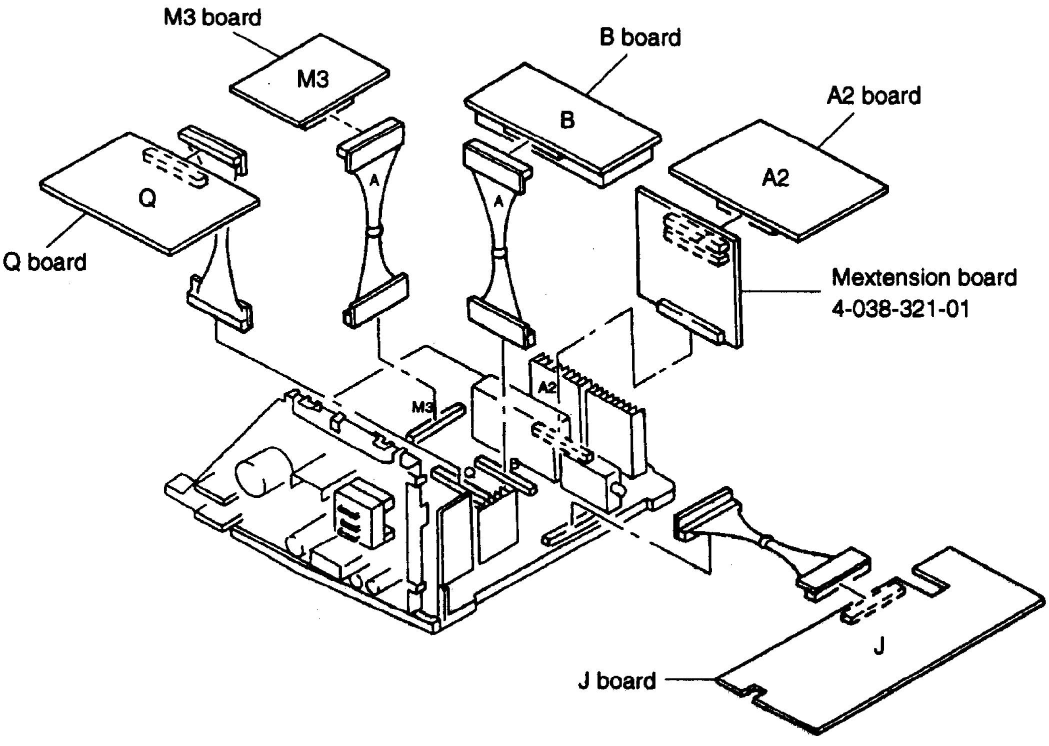
* Remove the connector braket and then perform the following servicing. (refer to 2-3. CHASSIS ASSY REMOVAL.)


③ H1-H2-F1 bracket
① After the assembly of the main chassis, lift and pull out the rear part of the main chassis toward the rear.
② Push the three claws of the main chassis in the direction of the arrow and remove the H1-H2-F bracket upwards.

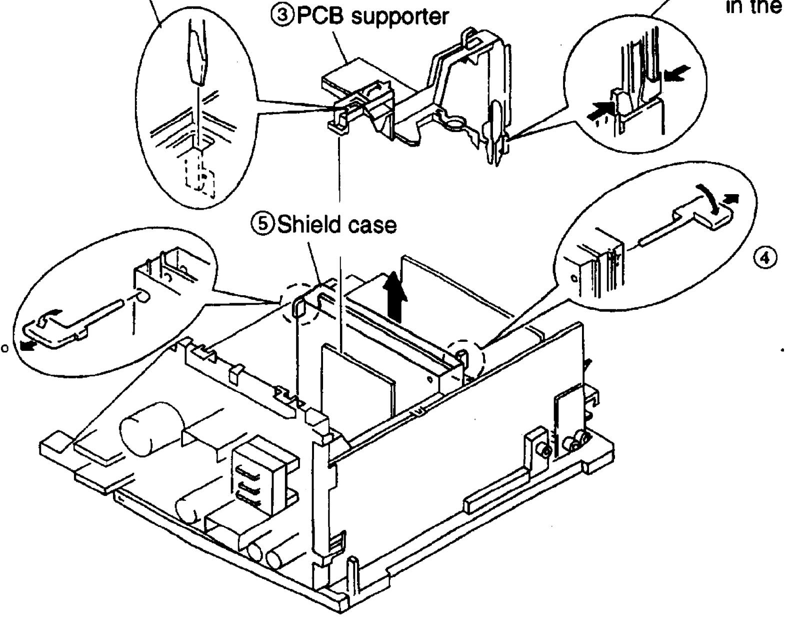
2-3. SERVICE POSITION



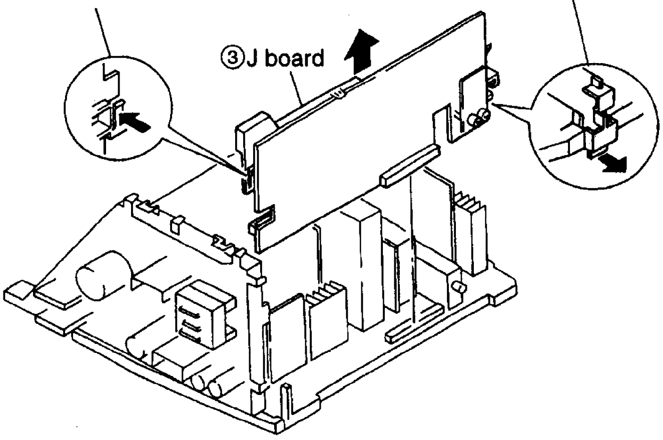
2-4. EXTENSION BOARD


M3 board
B board
A2 board
M3
B
A2
Q
A
A
Q board
Mextension board
4-038-321-01
M3
A2
B
J
J board

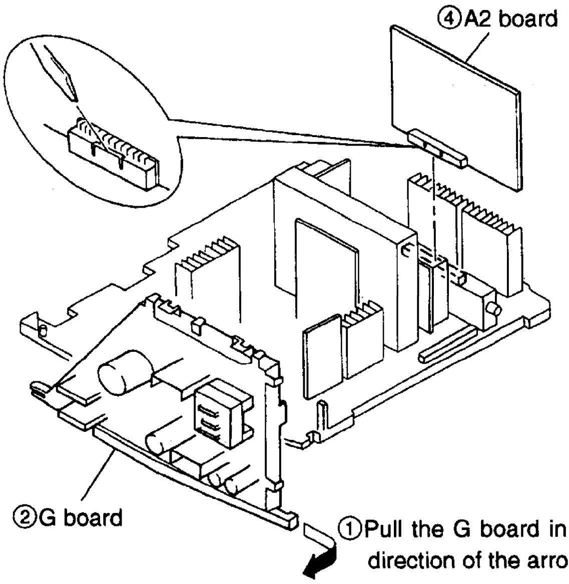
2-5. PCB SUPPORTER AND SHIELD CASE REMOVAL


①Insert ⊖ driver from sqaure hole and remove the claw.
③PCB supporter
②Pull up while pushing both sides in the direction of the arrow.
⑤Shield case
④
④Lay the key 90° and pull out.

2-6. J BOARD REMOVAL

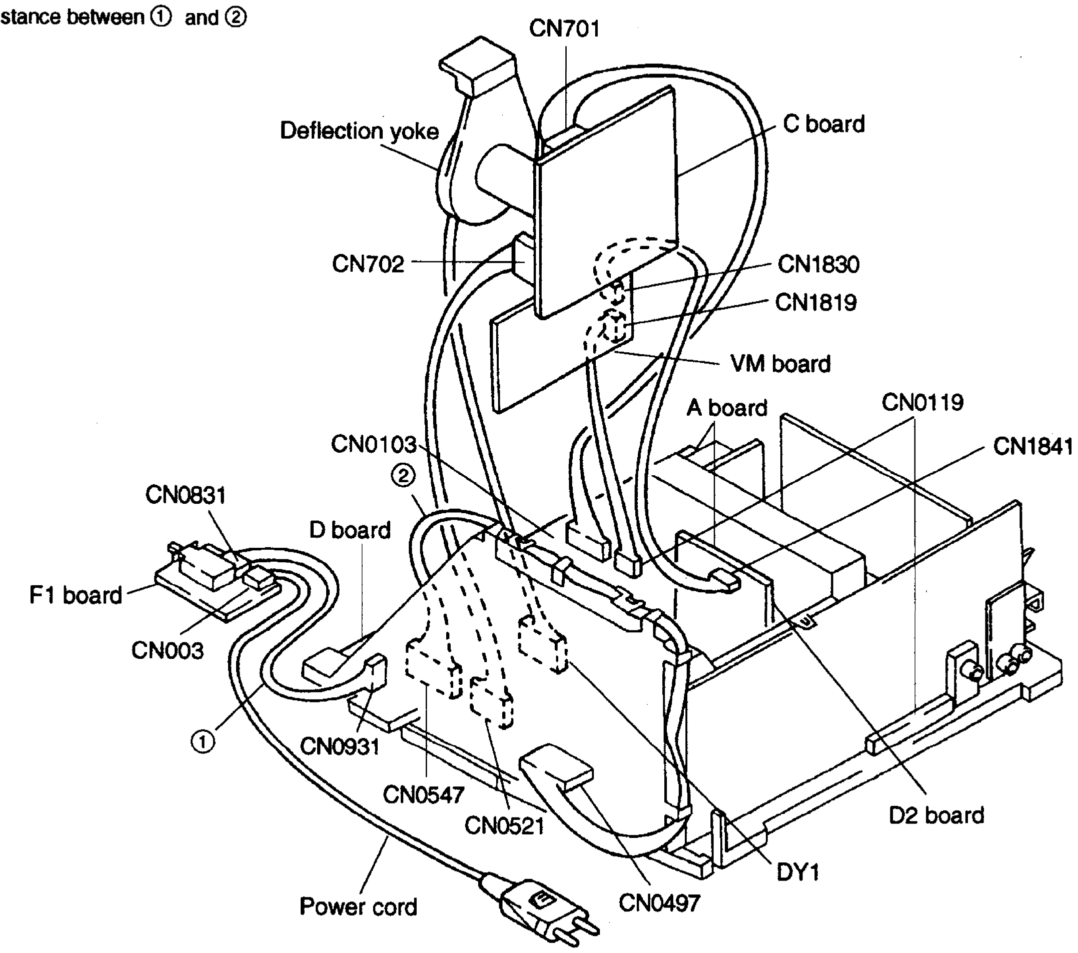

②Pull the claw of the bracket in the direction of the arrow and remove.
①Push the claw in the direction of the arrow and remove.
③J board

2-7. G AND A2 BOARDS REMOVAL

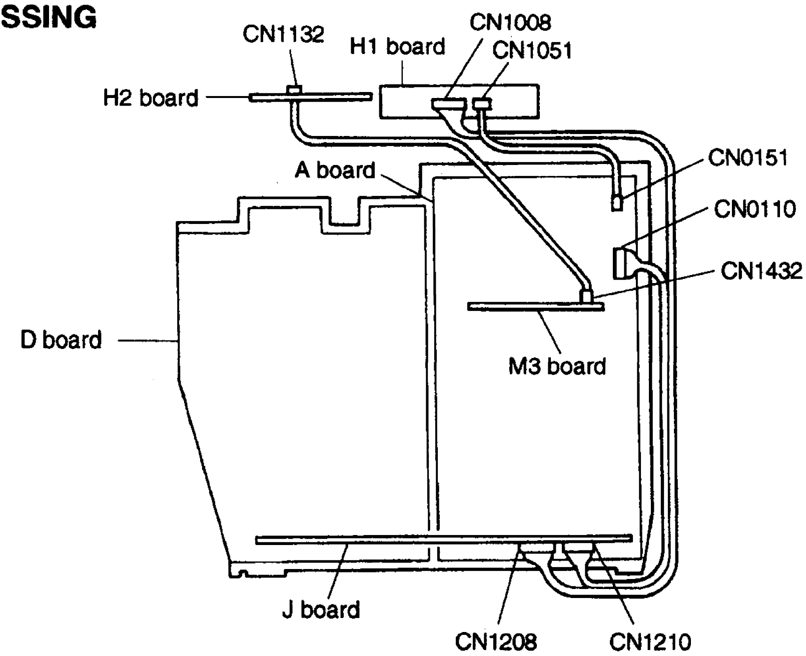

③Insert ⊖ driver to the claw of the connector an dremove
④A2 board
②G board
①Pull the G board in the direction of the arrow.

2-8-1. WIRE DRESSING

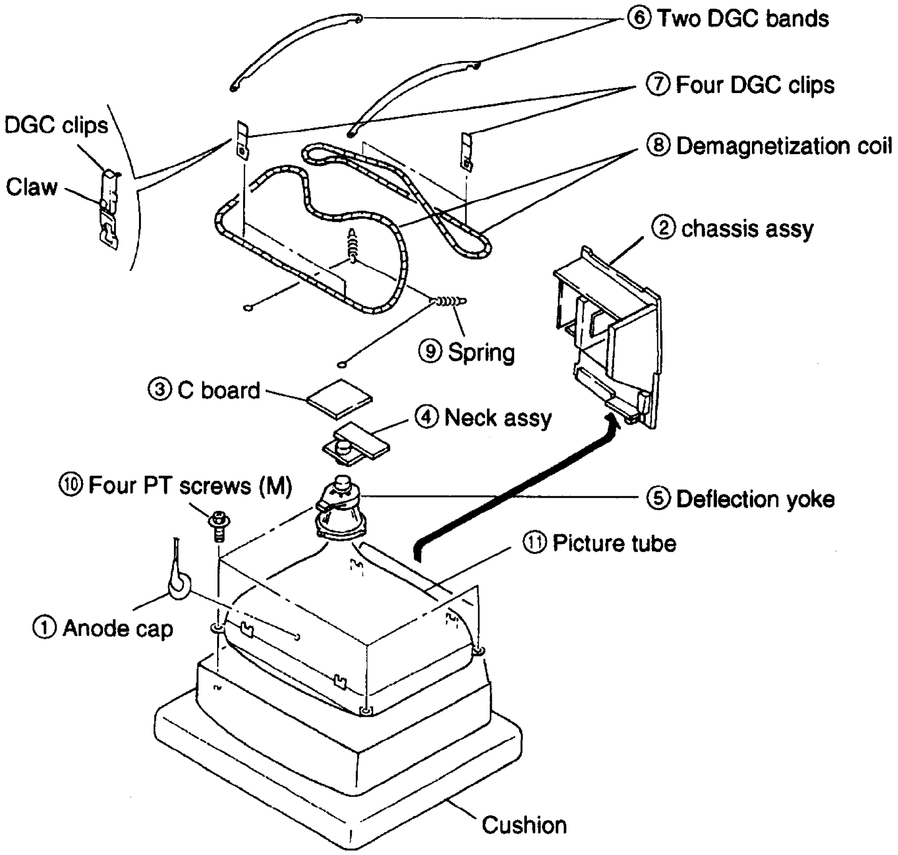
- Keep distance between ① and ②


CN701
Deflection yoke
C board
CN702
CN1830
CN1819
VM board
A board
CN0119
CN1841
CN0103
②
CN0831
D board
F1 board
CN003
①
CN0931
CN0547
CN0521
D2 board
DY1
Power cord
CN0497

2-8-2. WIRE DRESSING


CN1132
H1 board
CN1008
CN1051
H2 board
A board
CN0151
CN0110
CN1432
D board
M3 board
J board
CN1208
CN1210

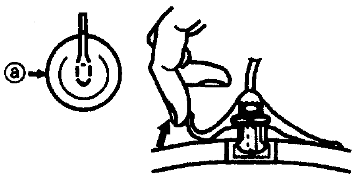
2-9. PICTURE TUBE REMOVAL

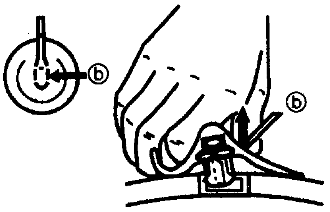

⑥ Two DGC bands
⑦ Four DGC clips
DGC clips
Claw
⑧ Demagnetization coil
② chassis assy
⑨ Spring
③ C board
④ Neck assy
⑩ Four PT screws (M)
⑤ Deflection yoke
⑪ Picture tube
① Anode cap
Cushion

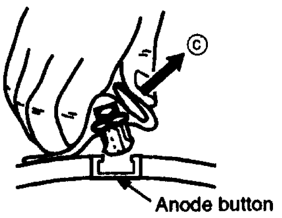
• REMOVAL OF ANODE-CAP

NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

- **REMOVING PROCEDURES**






ⓒ
Anode button

① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.

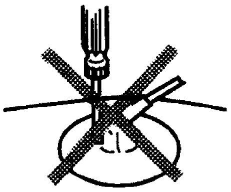
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

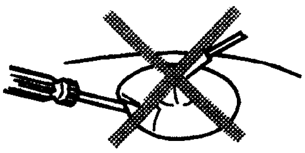
- **HOW TO HANDLE AN ANODE-CAP**

① Don't hurt the surface of the anode-cap with sharp shaped material!

② Don't press the rubber hardly hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches as this way:

◑ Contrast 80%
(or remote control normal)
☼ Brightness 50%

- Carry out the following adjustments in this order:

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.
1. Colour bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig. 3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each size. (see Fig. 3-1 - 3-3.)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig. 3-1.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4.)

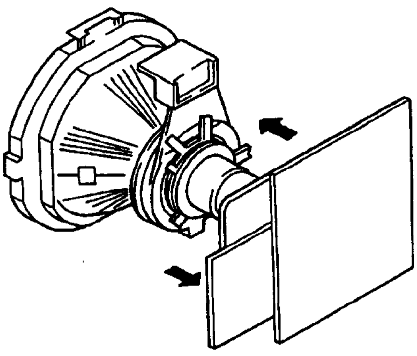


Fig. 3-1

Fig. 3-2

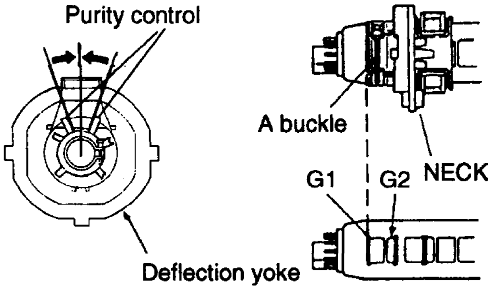

Purity control
A buckle
G1
G2
NECK ASSY
Deflection yoke

Fig. 3-3

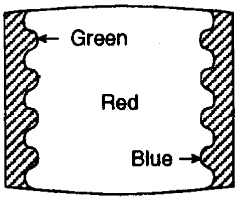
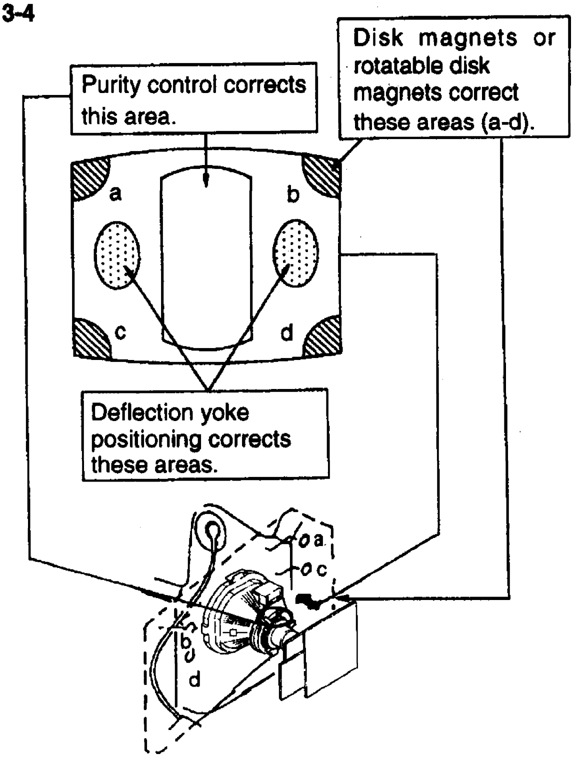

Green
Red
Blue

Fig. 3-4

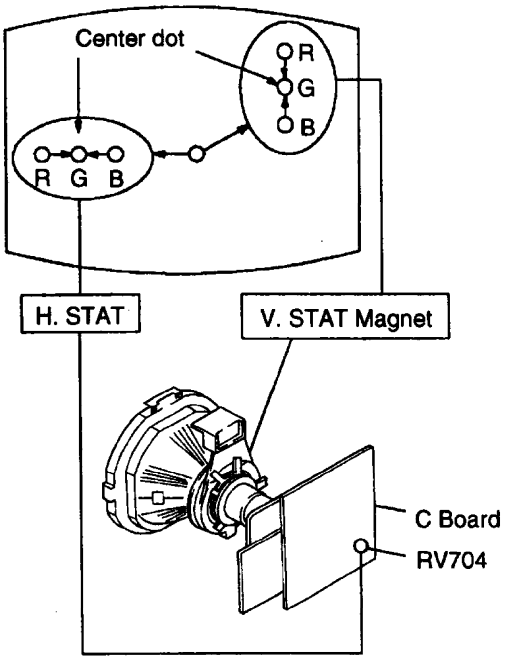

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a-d).
a
b
c
d
Deflection yoke positioning corrects these areas.
a
c
b
d

3-2. CONVERGENCE

Preparations:

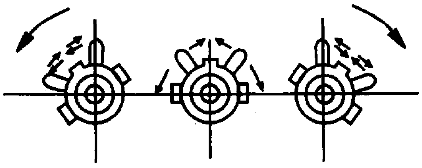
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

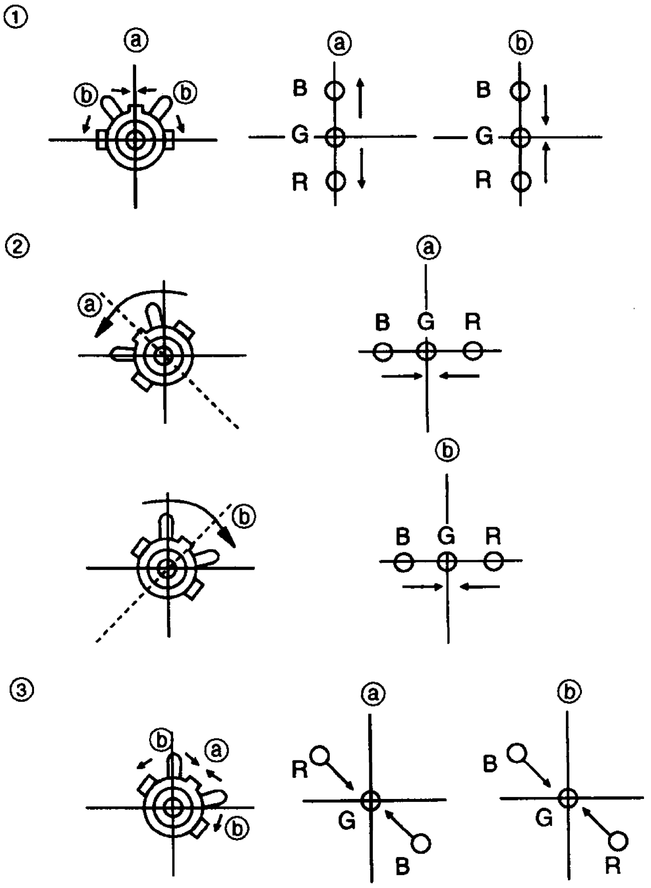


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

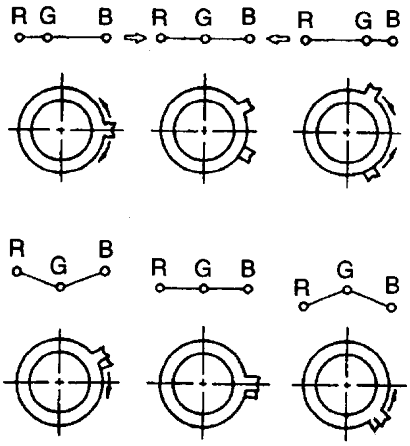
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



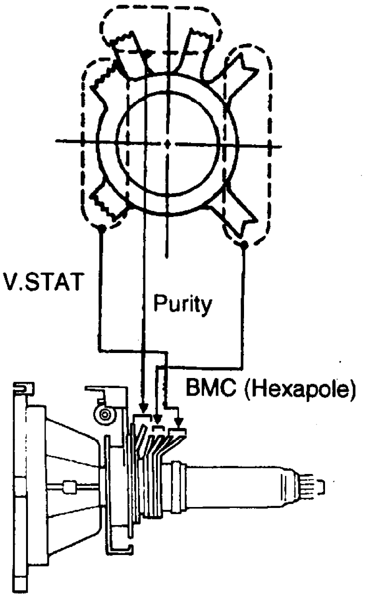
4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

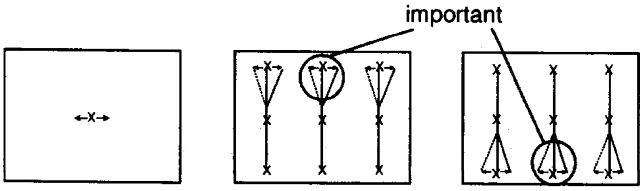


(2) Dynamic Convergence Adjustment

1. Adjust horizontal convergence located at the center position of the screen with H STAT VR.
2. Enter into service mode. (Refer to the section 2 "Electrical Adjustment" on how to enter service mode.)
3. Select CXA1526 on menu.
4. Select each item and adjust them so that each item attains optimal convergence.
5. Press [OK] button to write the data.

CXA1526		
1	DC SHIFT	(32)
2	UPPER Y BOW	(4)
3	LOWER BOW	(5)
4	H AMP	(48)
5	H TILT	(29)
6	UPPER COR BOW	(32)
7	UPPER TILT	
8	LOWER COR BOW	(32)
9	LOWER TILT	(32)

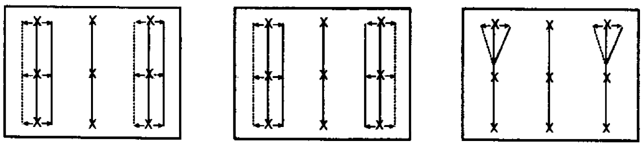
R.G.B. dots movement on the screen of the set



DC SHIFT
Fine adjustment of H STAT

UPPER Y BOW
Adjustment of Y BOW of the upper section of the screen.

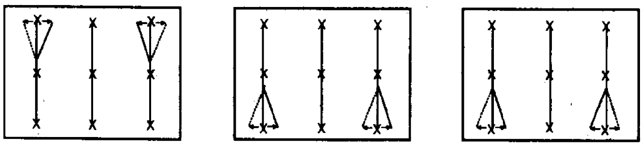
LOWER Y BOW
Adjustment of Y BOW of the lower section of the screen.



H AMP
H AMP adjustment

H TILT
H TILT adjustment

UPPER COR BOW
Adjustment of C BOW of the upper section of the screen.



UPPER TILT
Adjustment of TILT of the upper section of the screen.

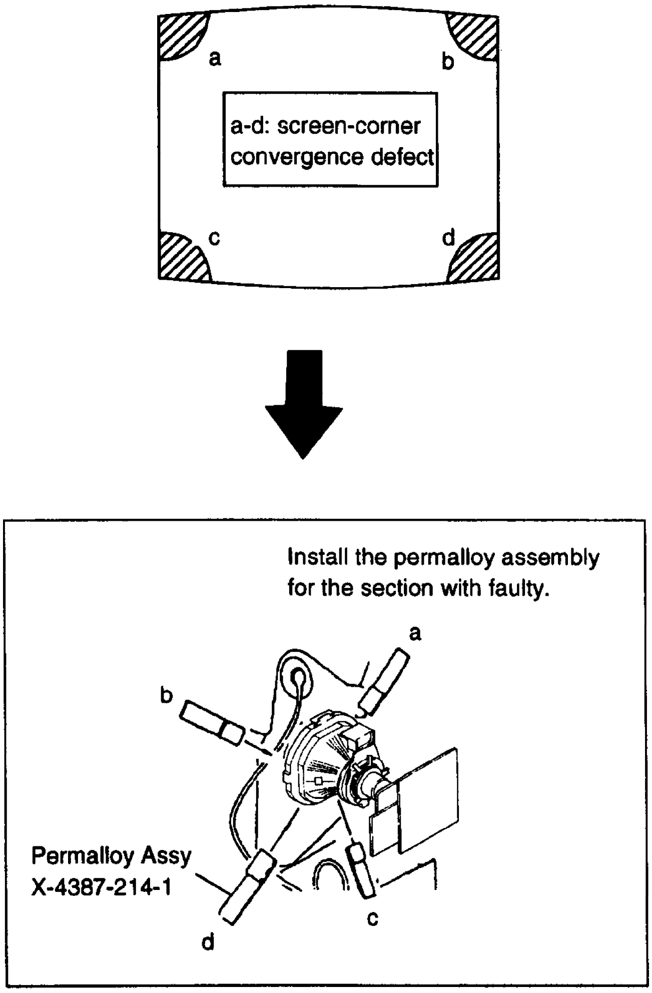
LOWER COR BOW
Adjustment of C BOW of the lower section of the screen.

LOWER TILT
Adjustment of TILT of the lower section of the screen.

At this time, H.TILT, H.AMP, UPPER TILT, UPPER COR, BOW, LOWER TILT, and LOWER COR, BOW look like all the same, but the movement of the right and left dots are reverse in all the TILT system. (Pay attention to the dotted lines.)

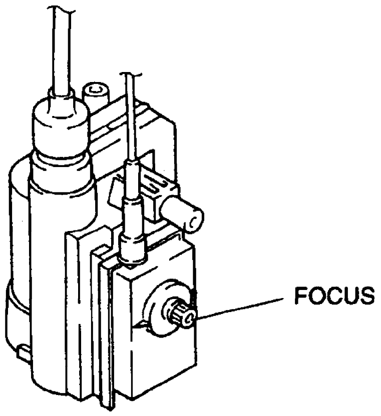
(3) Screen corner convergence

If you cannot adjust corner convergence properly, correct them with permalloy.


a
b
c
d
a-d: screen-corner convergence defect
Install the permalloy assembly for the section with faulty.
a
b
Permalloy Assy
X-4387-214-1
d
c

3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" to how to enter service mode.)
3. Select TDA4780 on menu.

Item No.	Adjustment item	Data amount
> 1	BRIGHT	31
2	COLOR	31
3	PICT	52
4	HUE	31
5	R GAIN	31
6	G GAIN	ADJ.
7	B GAIN	ADJ.
8	R LEVEL REF	ADJ.
9	G LEVEL REF	ADJ.
10	B LEVEL REF	ADJ.
11	PEAK DRV LIMIT	36
12	GAMMA	31
13	SANDCASTLE 2 LEVEL-5	ON
14	DELOF	OFF
15	DATA BUFFER	OFF

Select ▲▼ and press OK.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with ⊞, ⊟ buttons so that the white balance becomes optimum.
6. Press OK button to write the data for each item.
7. Set picture to MIN.
8. Adjust R LEVEL REF, G LEVEL REF and B LEVEL REF with ⊞, ⊟ buttons so that the white balance becomes optimum.
9. Press OK button to write the data for each item.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-831.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set. Then press "⏻" button of the remote commander twice.

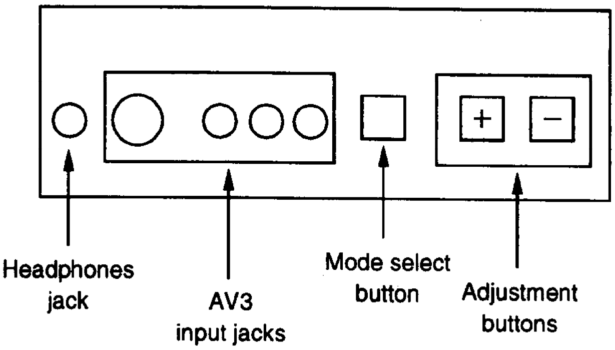

Headphones jack
AV3 input jacks
Mode select button
Adjustment buttons
+
−

Fig. 4-1

2. "TT" will appear on the upper right corner of the screen.

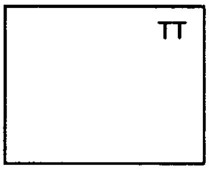


Fig. 4-2

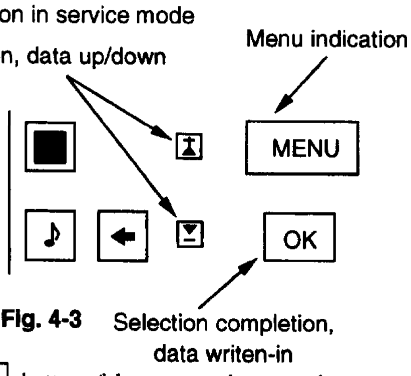

Command operation in service mode
Item selection, data up/down
Menu indication
MENU
OK
Selection completion, data writen-in

Fig. 4-3

3. Press the MENU button of the commander to get the menu on screen.

MAIN MENU
Programme Table
Video Connection
Screen Mode/PIP
Preset/Timer
Picture Control
Sound Control
Language
> DEMO
Select < > and press OK

Fig. 4-4

4. Press the ▲ and ▼ buttons of the commander and move > to DEMO.
5. Press OK button to proceed to the next menu.
6. The menu of fig. 4-5 will appear on screen. Select DEVICE corresponding to the adjustment item from the table on next page.

DEVICES
Init TV
> TDA4780
ECO3
CXD2018
TDA9145
CXA1526
TDA6812
CX7948a
P/P
Megatext
Digital Sound
Select < > and press OK

Fig. 4-5

7. If adjustment item is TDA4780, press the ▼ button and move > to TDA4780.

TDA4780

Item No.	Adjustment item	Data amount
> 1	BRIGHT	31
2	COLOR	31
3	PICT	52
4	HUE	31
5	R GAIN	41
6	G GAIN	38
7	B GAIN	31
8	R LEVEL REF	31
9	G LEVEL REF	31
10	B LEVEL REF	31
11	PEAK DRV LIMIT	36
12	GAMMA	31
13	SANDCASTLE 2 LEVEL-5	ON
14	DELOF	OFF
15	DATA BUFFER	OFF

Select ▲▼ and press OK.

8. Press OK button to get the next selection menu.
9. Press ▼ button and move > to the adjustment item and press OK button.
10. Press the ▲ and ▼ buttons to change the data in order to comply each standard.
11. Press OK button to write data.
12. Turn off the power to quit service mode when completing the adjustment.

TDA4780

Item No.	Adjustment item	Data amount
01	BRIGHT	31
02	COLOR	31
03	PICT	52
04	HUE	31
05	R GAIN	41
06	G GAIN	38
07	B GAIN	31
08	R LEVEL REF	31
09	G LEVEL REF	31
10	B LEVEL REF	31
11	PEAK DRV LIMIT	36
12	GAMMA	31
13	SANDCASTLE 2 LEVEL-5	ON
14	DELOF	OFF
15	DATA BUFFER	OFF
16	NTSC MATRIX	OFF
17	HDTV	OFF
18	FSBL	OFF
19	AUTO CUT OFF	ON
20	FSW 2 DISABLE	OFF
21	FSW 2	OFF
22	FSW 1 DISABLE	OFF
23	FSW 1	OFF
24	ADAPTIVE BLACK	OFF
25	Y HIGH 1V	OFF
26	MOD2	OFF
27	BLUE STRETCH	OFF
28	VM OUT	ON
29	PEAK DRV ABLOSUTE	ON
30	TIME CNST PEAK LIMIT	OFF
31	no selection	OFF
32	SUB BRIGHT	- 5
33	SUB COLOR	0

CXD2018

Item No.	Adjustment item	Data amount
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP. V	13
13	HV COMP. H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAN	OFF
19	INTERLACE	ON
20	H SHIFT	32

Typical Value (OSD based) when receiving PAL Philips pattern.

TDA6612	ADJ.
Stereo-Separation	(30)

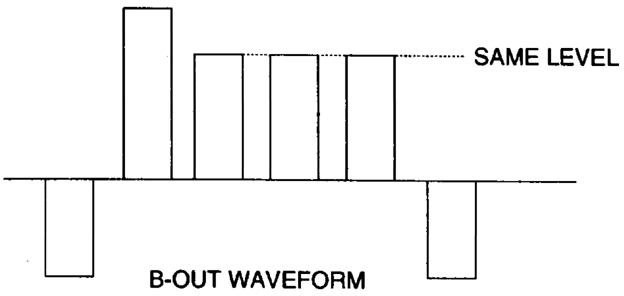
Should be adjusted twice 4:3 and 16:9 mode.

SUB BRIGHTNESS ADJUSTMENT

1. Input Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of the grey scale and CUT-OFF 20-IRE glitter slightly.

SUB COLOR ADJUSTMENT

1. Input PAL color bar.
2. Connect an oscilloscope to CN0403 ③ pin (B IN) on the C board.
3. Enter into service mode and press 33 of TDA4780, SUB COLOR.
4. Adjust data so that the right sides of the waveform will be the same.



STEREO-SEPARATION ADJUSTMENT

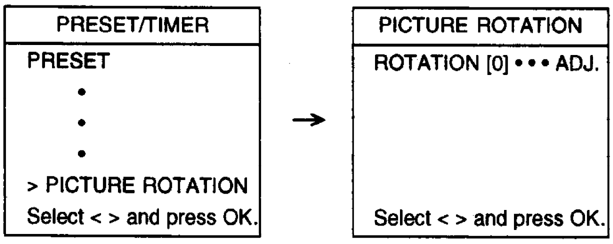
1. Input 1 kHz stereo signal to the L-ch and 400Hz stereo signal to the R-ch.
2. Enter into service mode.
3. Adjust data so that sound does not leak to the R-ch and the L-ch.

DRIVE AND CUT OFF

See direct test mode list attached and refer to sub brightness or such for adjustment method.

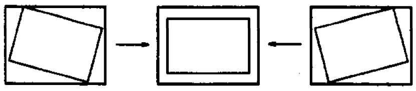
PICTURE ROTATION

1. Input PAL color bar.
2. Enter into service mode.
3. Press the MENU button of the commander to get the menu on screen.
4. Press the ▲ and ▼ buttons of the commander and move > to PRESET/TIMER.



PRESET/TIMER
PRESET
•
•
•
> PICTURE ROTATION
Select < > and press OK.

PICTURE ROTATION
ROTATION [0] • • • ADJ.
Select < > and press OK.

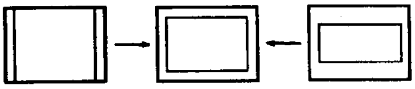


DEFLECTION SYSTEM ADJUSTMENT

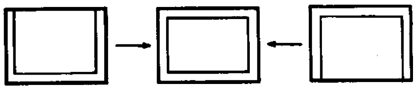
1. Enter into service mode and select CXD2018.
2. Select and adjust each item in order to get an optimum image.

Item No.	Adjustment item	Data amount
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP. V	13
13	HV COMP. H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	NON INTERLACE	ON
20	H SHIFT	ADJ.
21	NS CORRECT 2R	ADJ.

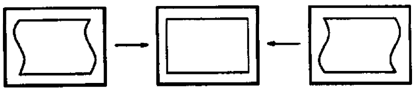
V SIZE



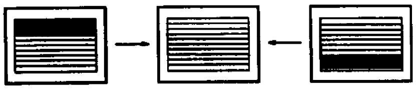
V SHIFT



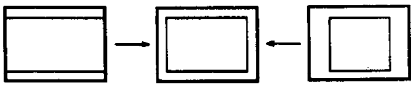
S CORRECTION



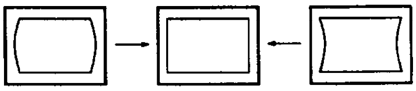
V LINEARITY



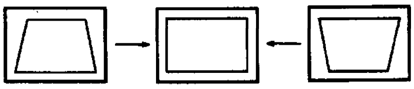
H SIZE



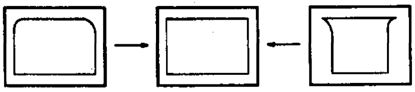
PIN AMP



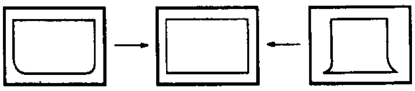
TILT



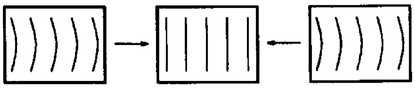
UPPER CORNER PIN



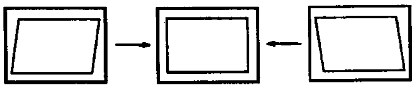
LOWER CORNER PIN



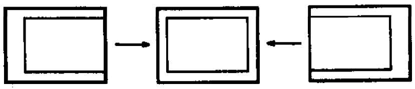
V BOW



ANGLE



H SHIFT

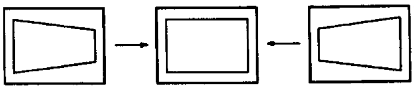


3. Press OK button to write the data.

If menu display may disturb the adjustment press 🔇 to clear, to resume it, press 🔇 again.

N/S CORRECT (RV1501)

(Adjust RV1501)



BELL FILTER ADJUSTMENT L3,L2

1. Input PHILIPS Signal.
2. Connect an oscilloscope to pin ⑮ of IC1.
3. Adjust L3 (Bell Filter) to get a flat chroma/smooth signal. (Photo ① for reference)
4. Connect an oscilloscope to pin ② of IC2.
5. Adjust L2 (B – Y) to get symmetrical transient between (R – Y) → (B – Y) and (B – Y) → (R – Y). (Photo ② for reference)
6. Connect pin ⑤ of CN2.
7. Confirm ID flip-flop output signal as below.

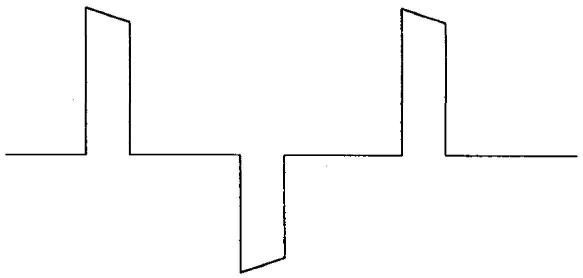


PHOTO ① BELL FILTER ADJUSTMENT (L3)

< MONITOR PIN ⑮ of IC1
Connect

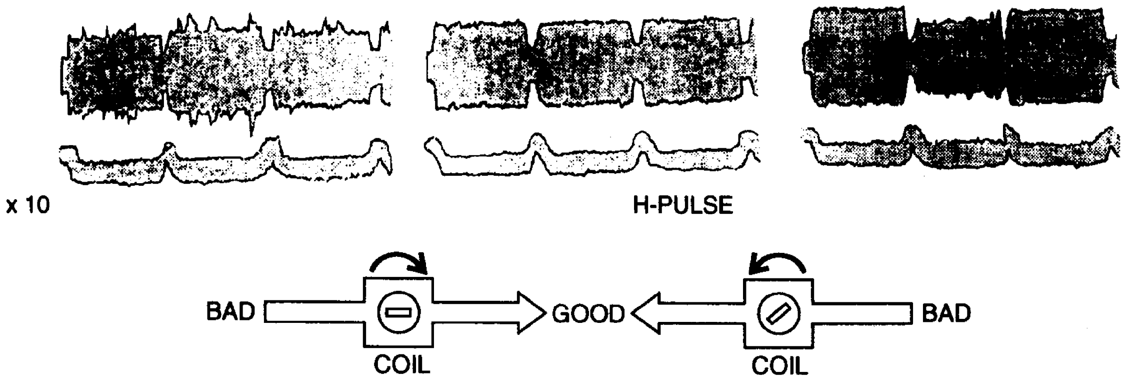
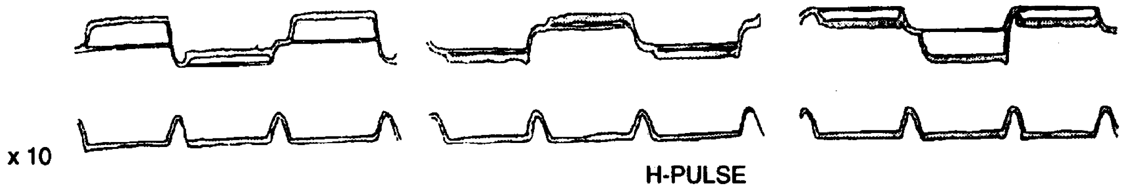


PHOTO ② COL BALANCE ADJUSTMENT (L2)

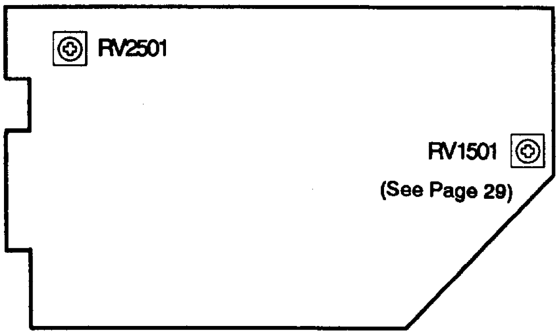
< MONITOR PIN ② of IC1



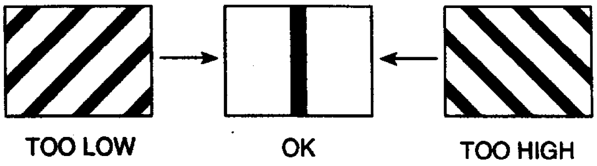
4-2. VOLUME ELECTRICAL ADJUSTMENTS

H.FREQ ADJUSTMENT (RV2501)

D BOARD

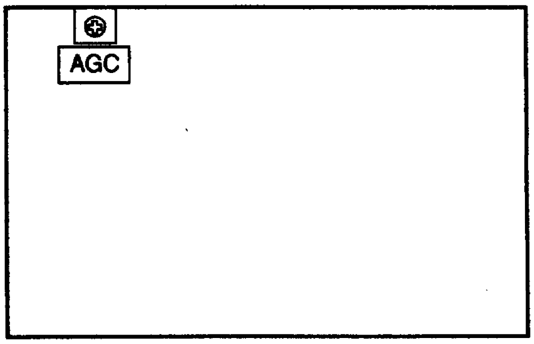


1. Input Philips pattern.
2. Add 100μF 16V capacitor in parallel with R2503, to make free run condition.
3. Adjust RV2501 to obtain frequency to 31.25Hz ± 50Hz.



AGC ADJUSTMENT (IF BLOCK)

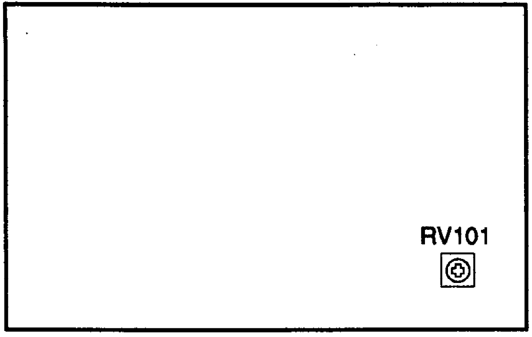
A BOARD



1. Receive off-air signal.
2. Adjust AGC VR so that there is no snow noise and cross-modulation.
3. Change receiving channel and confirm status.

DET OUT ADJUSTMENT (RV101)

A BOARD (COMPONENT SIDE)



1. Input Philips pattern.
2. Adjust RV101 so that 1.0Vp-p can be obtained at⑤ pin of CN109. (A BOARD)

4-3. TEST MODE 2:

Is available by pressing Test button two times, OSD "TT" appears. The functions described bellow are available by pressing the two numbors. To release the Test Mode 2, press two times 0, 10, 20 ... or switch TV in Standby Mode.
Holding tow Local Control buttons (+ and –) pressed during Power ON will also switch in "TT" mode.

In TT mode, it is possible Speaker Off button. By pressing 2nd time the Speaker OFF button the menu will appear again. Function is kept even menu is not displayed!!

00	Switch TV back in normal mode - TT mode off
01	Direct access to Picture maximum
02	Direct access to Picture minimum
03	Set the Volume to 35% (Production request)
04	Set the Volume to 50% (Production request)
05	Set the Volume to 65% (Production request)
06	Set the Volume to 80% (Production request)
07	no function
08	Shipping Condition (Production request) To ensure that all TV sets leave the Production with the same presettings. Programme 1 is selected, AAV IN is set to AV1, AV Out is set to TV Out, Volume and HP Volume is set to 35%. Resolution is set to high. Format is set to 4:3. Pip is set to Top Left position,. Pip is switched off. TT mode is switched off, all analogue values are set to the reset setting (factory setting).
09	Language reset (Production request) With this function the "Language Byte" in the NVM (Bank 0AAH Adress 0DCH) is erased (set to 0FFH). The Language Menu appears now automatically when the TV set is switched ON as long as no new language is selected.
10	The TT number will be deleted. All numbers with 0 (10, 20, 30, 40) will reset the TT number. A new number can be selected. TT display is kept.
11	Direct access to Balance (Production request) With Cursor Up/Down the Balance can be controlled (w/o OSD, Menu display).
12	Direct access to Hue (Production request) With Cursor Up/Down the Balance can be controlled (w/o OSD, Menu display).
13	Display of Software Version and TV set configuration.
14	Adjustment of N/S correction

15	Read Factory setting from ROM (Programme Code) and store this data at Last Power Memory data location. (The previous last power memory data is overwritten). (For Sevice) AE2F has 3 packages of Analogue datas: 1. Last Power Memory data. This data is send continiously to the corresponding IC's (TDA4686, TDA9145, TDA6612) with this data the TV picture/ sound appears. 2. Reset data. By pressing "Reset" in menu this data is transferd from Reset Data location to the Last Power data location in NVM. That means the previous Last Power Memory Data is overwritten by the Reset data. Last Power memory and Reset data are now the same. 3. Factory fixed data. In the ROM Code of micro processor are also analogue datas which are fixed (ROM can't be changed).
16	Save actual Last Power Memory data at Reset Data location. (the previous Reset datas are overwritten) (For Service)
15/16	With these two funcitons, it is possible to preset user defined Reset values (just TT 16) or to preset factory defined Reset values (first TT 15 then TT 16).
17	This funciton presets the Labels for the AV sources: The Labels are AV1, RGB, AV2, YC2, AV3, VC3, AV4, VC4. (Production request)
18	Text possible On/Off selection of Text (toggle function)
19	Direct access to Stereo Separation. With Cursor Up/Down command the Separation can be adjusted. (no need to select teh menu)

20	see TT10 In case of TT functions which give the possibility of "Direct access", the adjustment can be done with Cursor Up/Down commands. After releasing the selected TT function by TT 00 or other TT number the adjusted value is stored automatically.
21	no function
22	no function
23	no function
24	no function
25	no function
26	Text Character Set selection Char set 06 -> West Europe (see 9.24 Text Character Set)
27	Text Character Set selection Char set 38 -> East Europe (see 9.24 Text Character Set)
28	Text Character Set selection Char set 40 -> West Europe US English (see 9.24 Text Character Set)
29	Text Character Set selection Char set 55 -> West Europe Turkish (see 9.24 Text Character Set)
30	see TT10
31	Direct access to Red Gain [TDA4780]
32	Direct access to Green Gain [TDA4780]
33	Direct access to Blue Gain [TDA4780]
34	Reserved for TDA4780 Red Level Ref
35	Reserved for TDA4780 Green Level Ref
36	Reserved for TDA4780 Blue Level Ref
37	Direct access to Peak Drive Limit [TDA4780]
38	Direct access to Gamma Level [TDA4780]
39	no function
40	see TT10
41	TDA4780 is set to default data (almost Center positions)
42	TDA4780 is set to default data (almost Center positions)
43	TDA4780 is set to default data (almost Center positions)
44	ECO 2 is set to default data.
45	Set NVM to Protect mode (Bank 0AEH Adr. 0FFH write with 0)
46	IR Channel Pressetting Mode The channel pressetting can be done by a Special IR Transmitter. Sequence: TT46 -> -- PR Number select display appears Select Prog. No. from where the channels shall be stored. --> Now TV is waiting for IR sequence. <-- --> If no IR transmission starts TT46 is released after 20sec. <-- ! NOTE: when TT46 is active, any IR transmission will be interpret4d as PROG Data!
47	Adjustment of MPIP MultiPIP horizontal position
48	Adjustment of MPIP MultiPIP vertical position After using TT49 a compliter new adjustment is necessary !!!
49	The EEPROM Testbyte is erased. After Power OFF -> ON the complete EEPROM data (except channel tables) are overwritten. EEPROM Protection Byte is set to 0 - protection mode.

Note: For No. 35 / 36 / 37 / 38 special pressing (AKB, forced Color Mode, Trap) is selected.
After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched On and TDA9145 is switched to Auto Search Mode.

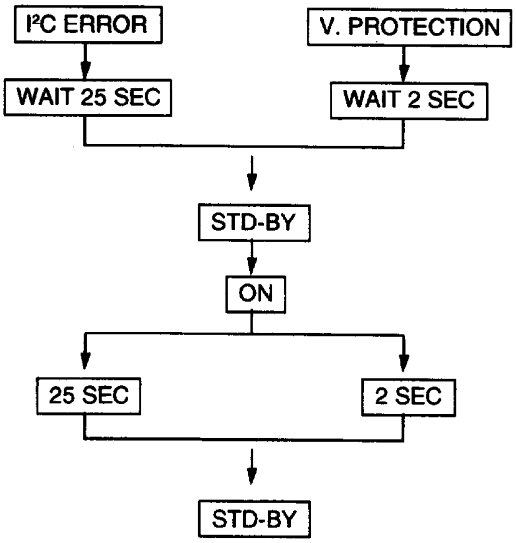
Note: Functions TT 41 / 42 / 43 / 44 are only available when PR 99 is selected, to avoid inadvertently usage. These functions overwrite the complete data package for teh selected IC in the EEPROM. After using one of these functions a complete new adjustment of the selected IC is necessary !!!!!

In Test Mode 2 the Menu display is switchable by Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnos system can operates as follows.

- When MP can't get the acknowledge back from the device, LED starts flashing according to the table as attached.'



In case of more errors in parallel, the blinking error shows max. Priority according to the error number (e.g. error 2 and error 5 appears together, then LEDs shows error 2).

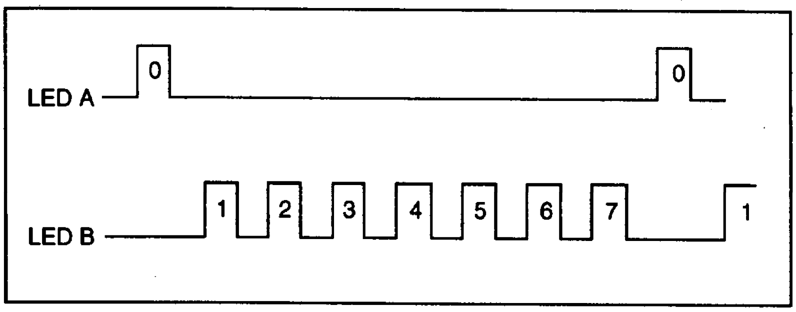
TABLE OF ERRORS

ERROR COUNT	IC TYPE	FUNCTION
1	II C BUS	SDA low
2	NVM	EEPROM
3	SDA3202	Tuner Pll
4	TDA9145	Colour decoder
5	TDA4780	RGB/Jungle
6	TDA6612	Sound processor
7	CXD2018	V deflection
8	CXA1545	AV switch
11	SDA5248	Text
13		V protection
Stand by LED blinking		No IK return

4-5. ERROR II C BUS DIAGNOSIS SYSTEM IN AE-2F CHASSIS

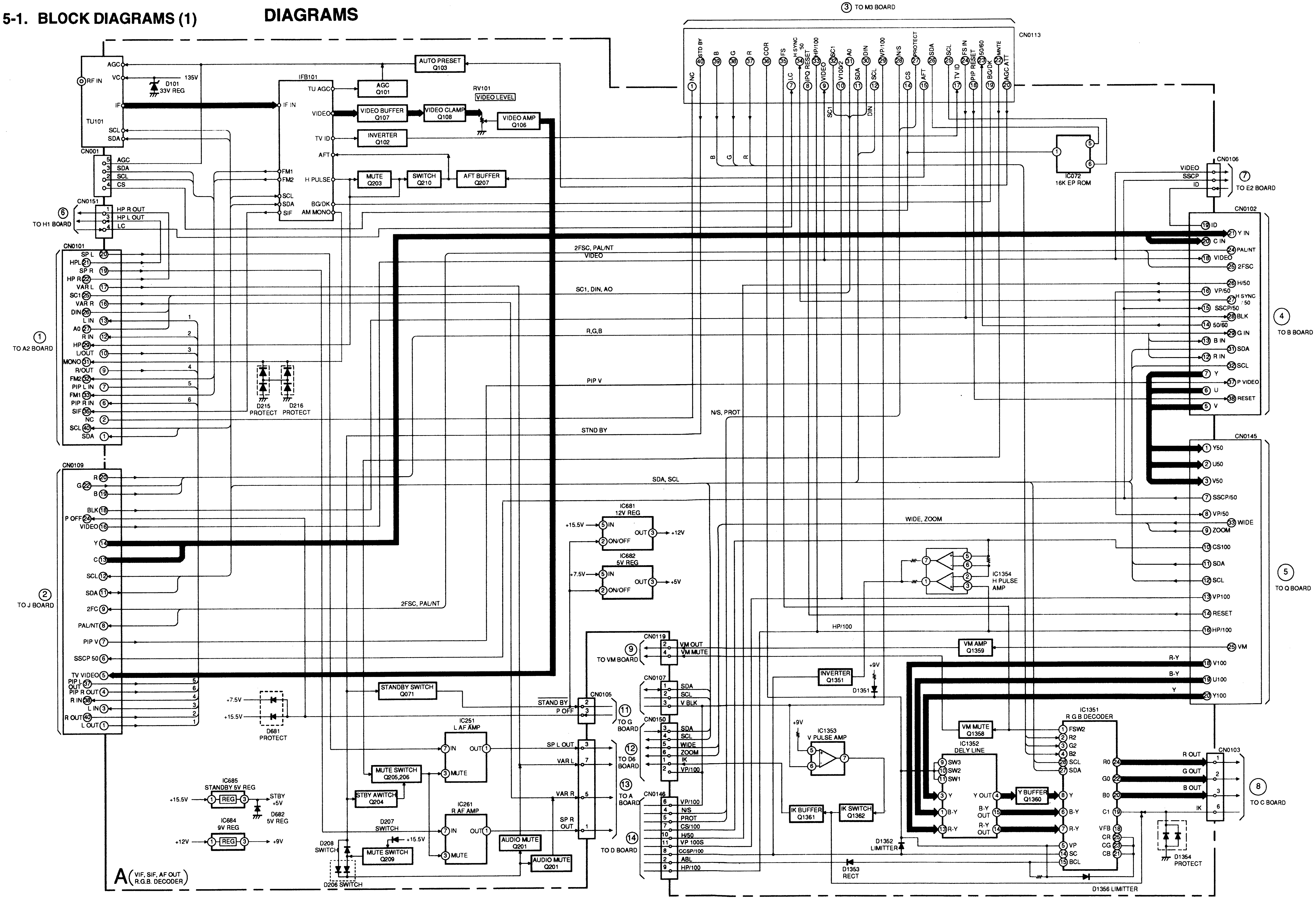
For all ICs in AE- 2F chassis which are necessary to get picture and sound there is a built in error I²C Bus diagnosis system.

In case of no acknowledge bit, LED A and LED B starts blinking as shown.

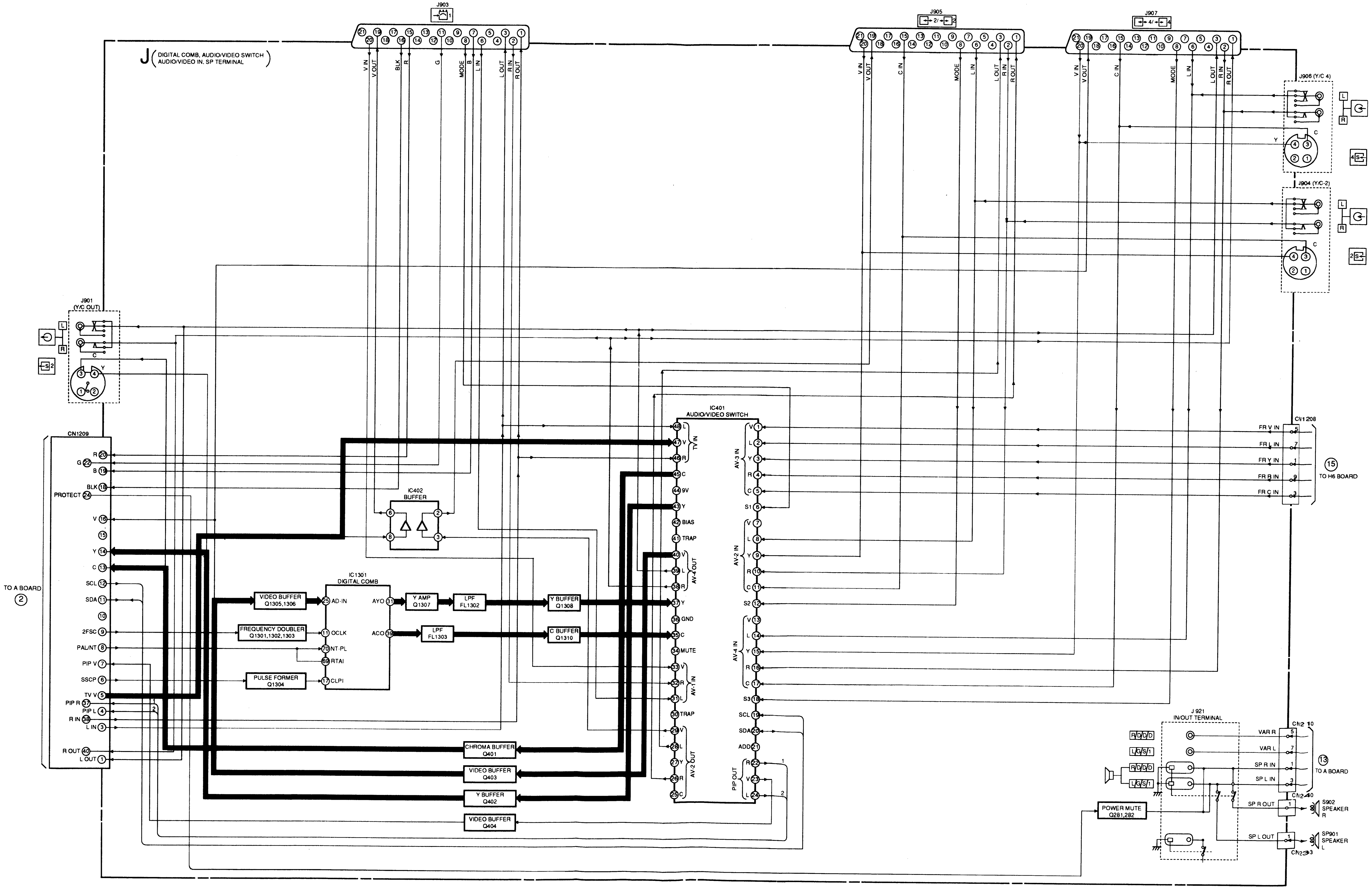


SECTION 5
DIAGRAMS

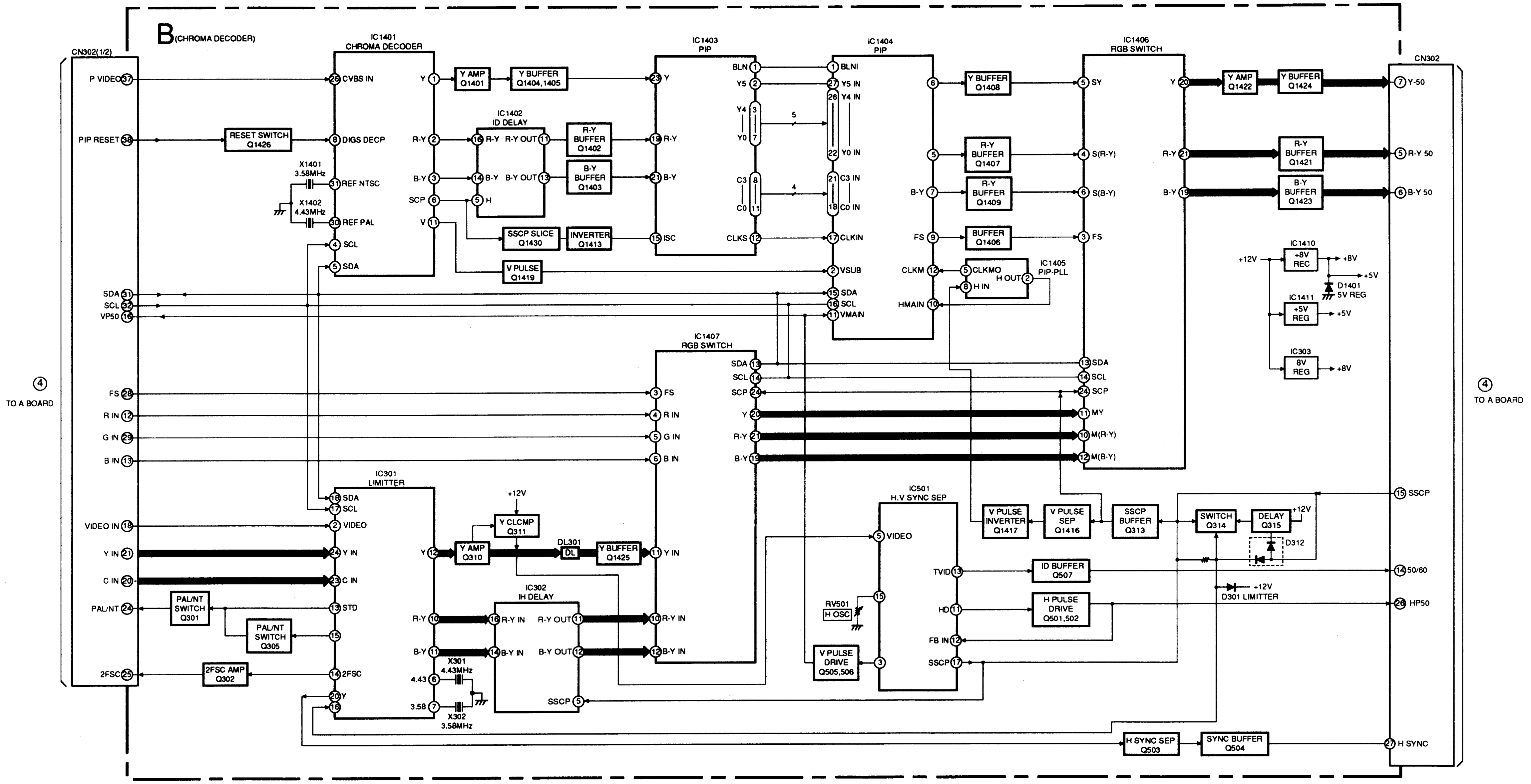
5-1. BLOCK DIAGRAMS (1)


③ TO M3 BOARD
CN0113
TU101
RF IN
AGC
VC
IF
SCL
SDA
135V
D101 33V REG
CN001
IFB101
TU AGC
IF IN
VIDEO
TV ID
AFT
FM1
FM2
H PULSE
SCL
SDA
SIF
BG/DK
AM MONO
AUTO PRESET Q103
AGC Q101
VIDEO BUFFER Q107
VIDEO CLAMP Q108
RV101 VIDEO LEVEL
VIDEO AMP Q106
INVERTER Q102
MUTE Q203
SWITCH Q210
AFT BUFFER Q207
CN0151
HP R OUT
HP L OUT
LC
⑥ TO H1 BOARD
CN0101
① TO A2 BOARD
D215 PROTECT
D216 PROTECT
CN0109
② TO J BOARD
2FSC, PAL/NT
VIDEO
SC1, DIN, AO
R,G,B
PIP V
N/S, PROT
STND BY
SDA, SCL
WIDE, ZOOM
HP/100
IC681 12V REG
IC682 5V REG
+15.5V
+12V
+7.5V
+5V
ON/OFF
IC1354 H PULSE AMP
IC072 16K EP ROM
CN0106
VIDEO
SSCP
ID
⑦ TO E2 BOARD
CN0102
④ TO B BOARD
CN0145
⑤ TO Q BOARD
VM AMP Q1359
R-Y
B-Y
Y
CN0119
VM OUT
VM MUTE
⑨ TO VM BOARD
CN0107
CN0105
STAND BY
P OFF
⑪ TO G BOARD
CN0150
⑫ TO D6 BOARD
⑬ TO A BOARD
CN0146
⑭ TO D BOARD
INVERTER Q1351
D1351
IC1353 V PULSE AMP
IK BUFFER Q1361
IK SWITCH Q1362
D1352 LIMITTER
D1353 RECT
VM MUTE Q1358
IC1352 DELY LINE
Y BUFFER Q1360
IC1351 R G B DECODER
CN0103
R OUT
G OUT
B OUT
IK
⑧ TO C BOARD
D1354 PROTECT
D1356 LIMITTER
STANDBY SWITCH Q071
D681 PROTECT
IC251 L AF AMP
IC261 R AF AMP
MUTE SWITCH Q205,206
STBY AWITCH Q204
D207 SWITCH
D208 SWITCH
MUTE SWITCH Q209
AUDIO MUTE Q201
D206 SWITCH
SP L OUT
VAR L
VAR R
SP R OUT
IC685 STANDBY 5V REG
STBY +5V
D682 5V REG
IC684 9V REG
+9V
A (VIF, SIF, AF OUT R.G.B. DECODER)

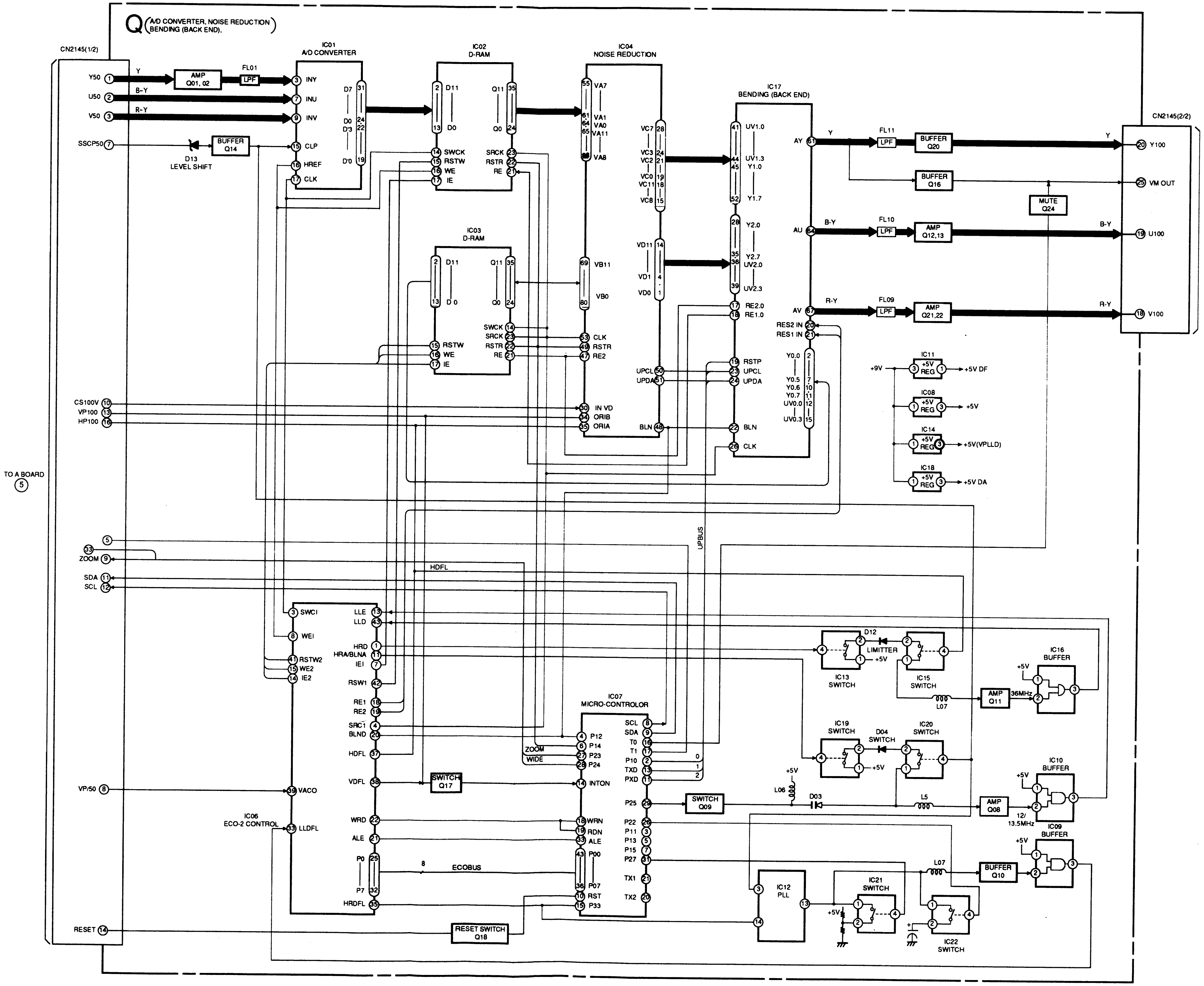
BLOCK DIAGRAMS (2)


J903
J (DIGITAL COMB, AUDIO/VIDEO SWITCH AUDIO/VIDEO IN, SP TERMINAL)
V IN
V OUT
BLK
R
G
MODE
B
L IN
L OUT
R IN
R OUT
J905
2/ 2
C IN
J907
4/ 4
J906 (Y/C 4)
J904 (Y/C-2)
L
R
C
Y
4S
2S
J901
(Y/C OUT)
S2
IC401
AUDIO/VIDEO SWITCH
TV IN
AV-3 IN
AV-2 IN
AV-4 IN
AV-4 OUT
AV-1 IN
AV-2 OUT
PIP OUT
9V
BIAS
TRAP
GND
MUTE
S1
S2
S3
SCL
SDA
ADD
IC402
BUFFER
CN1209
PROTECT
2FSC
PAL/NT
PIP V
SSCP
TV V
PIP R
PIP L
R IN
L IN
R OUT
L OUT
TO A BOARD
②
IC1301
DIGITAL COMB
VIDEO BUFFER
Q1305,1306
FREQUENCY DOUBLER
Q1301,1302,1303
PULSE FORMER
Q1304
AD-IN
OCLK
NT-PL
RTAI
CLPI
AYO
ACO
Y AMP
Q1307
LPF
FL1302
LPF
FL1303
Y BUFFER
Q1308
C BUFFER
Q1310
CHROMA BUFFER
Q401
VIDEO BUFFER
Q403
Y BUFFER
Q402
VIDEO BUFFER
Q404
CN1208
FR V IN
FR L IN
FR Y IN
FR R IN
FR C IN
⑮
TO H6 BOARD
J 921
IN/OUT TERMINAL
R/D/D/D
L/G/S/1
VAR R
VAR L
SP R IN
SP L IN
SP R OUT
SP L OUT
CN2 10
CN2 40
CN2 3
⑬
TO A BOARD
POWER MUTE
Q281,282
S902
SPEAKER
R
SP901
SPEAKER
L

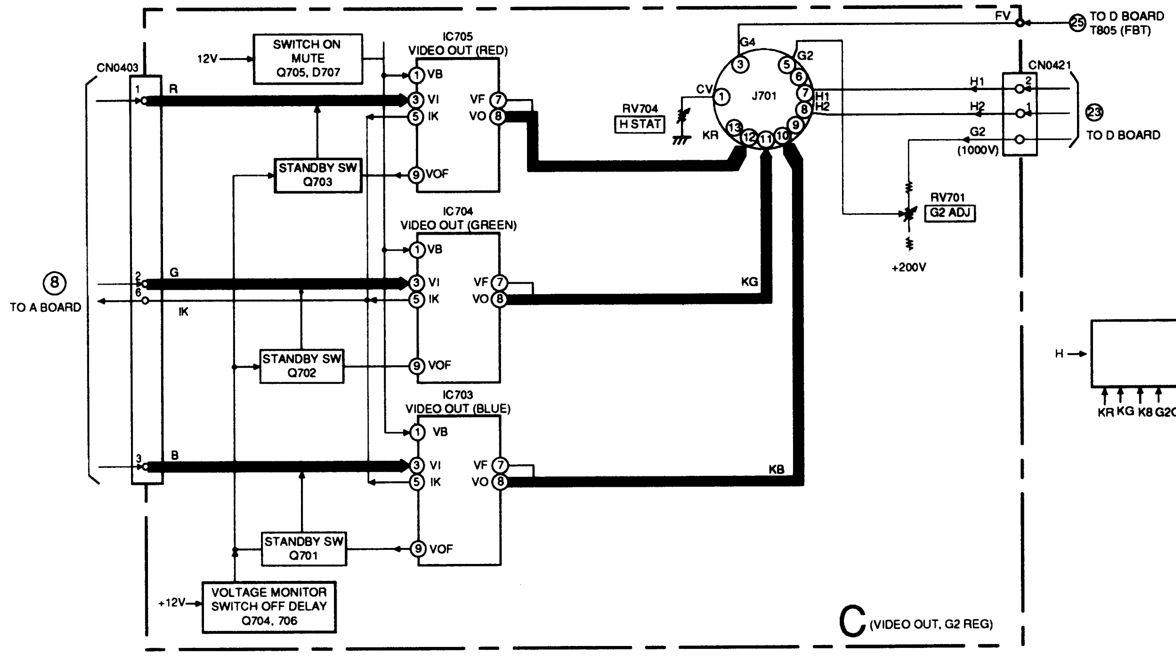
BLOCK DIAGRAMS (3)

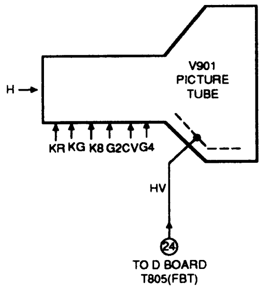

B (CHROMA DECODER)
CN302(1/2)
P VIDEO 37
PIP RESET 38
SDA 31
SCL 32
VP50 16
FS 28
R IN 12
G IN 29
B IN 13
VIDEO IN 18
Y IN 21
C IN 20
PAL/NT 24
2FSC 25
④ TO A BOARD
IC1401 CHROMA DECODER
26 CVBS IN
8 DIGS DECP
31 REF NTSC
30 REF PAL
4 SCL
5 SDA
Y 1
R-Y 2
B-Y 3
SCP 6
V 11
RESET SWITCH Q1426
X1401 3.58MHz
X1402 4.43MHz
Y AMP Q1401
Y BUFFER Q1404,1405
IC1402 ID DELAY
16 R-Y
R-Y OUT 11
14 B-Y
B-Y OUT 13
5 H
R-Y BUFFER Q1402
B-Y BUFFER Q1403
SSCP SLICE Q1430
INVERTER Q1413
V PULSE Q1419
IC1403 PIP
23 Y
19 R-Y
21 B-Y
15 ISC
BLN 1
Y5 2
Y4 3
Y0 7
C3 8
C0 11
CLKS 12
5
4
IC1404 PIP
1 BLNI
27 Y5 IN
26 Y4 IN
22 Y0 IN
21 C3 IN
18 C0 IN
17 CLKIN
2 VSUB
15 SDA
16 SCL
11 VMAIN
6
5
B-Y 7
FS 9
CLKM 12
HMAIN 10
IC1405 PIP-PLL
5 CLKMO
H OUT 2
8 H IN
Y BUFFER Q1408
R-Y BUFFER Q1407
R-Y BUFFER Q1409
BUFFER Q1406
IC1406 RGB SWITCH
5 SY
4 S(R-Y)
6 S(B-Y)
3 FS
13 SDA
14 SCL
24 SCP
11 MY
10 M(R-Y)
12 M(B-Y)
Y 20
R-Y 21
B-Y 19
Y AMP Q1422
Y BUFFER Q1424
R-Y BUFFER Q1421
B-Y BUFFER Q1423
IC1410 +8V REC
+12V
+8V
+5V
D1401 5V REG
IC1411 +5V REG
+5V
IC303 8V REG
+8V
IC1407 RGB SWITCH
SDA 13
SCL 14
SCP 24
3 FS
4 R IN
5 G IN
6 B IN
Y 20
R-Y 21
B-Y 19
11 Y IN
10 R-Y IN
12 B-Y IN
IC301 LIMITTER
18 SDA
17 SCL
2 VIDEO
24 Y IN
23 C IN
13 STD
15
14 2FSC
20 Y
16
Y 12
R-Y 10
B-Y 11
4.43 6
3.58 7
X301 4.43MHz
X302 3.58MHz
PAL/NT SWITCH Q301
PAL/NT SWITCH Q305
2FSC AMP Q302
+12V
Y CLCMP Q311
Y AMP Q310
DL301 DL
Y BUFFER Q1425
IC302 IH DELAY
16 R-Y IN
R-Y OUT 11
14 B-Y IN
B-Y OUT 12
SSCP 5
IC501 H.V SYNC SEP
5 VIDEO
15
3
TVID 13
HD 11
FB IN 12
SSCP 17
RV501 H OSC
V PULSE DRIVE Q505,506
V PULSE INVERTER Q1417
V PULSE SEP Q1416
SSCP BUFFER Q313
SWITCH Q314
DELAY Q315
+12V
D312
ID BUFFER Q507
H PULSE DRIVE Q501,502
D301 LIMITTER
+12V
H SYNC SEP Q503
SYNC BUFFER Q504
CN302
7 Y-50
5 R-Y 50
6 B-Y 50
15 SSCP
14 50/60
26 HP50
27 H SYNC
④ TO A BOARD

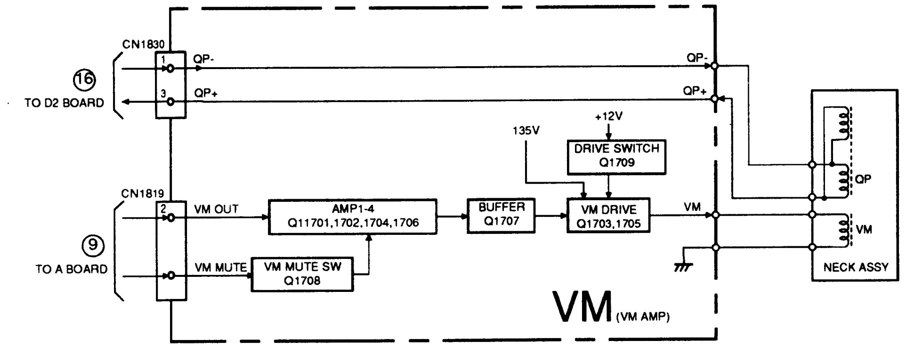
BLOCK DIAGRAMS (4)

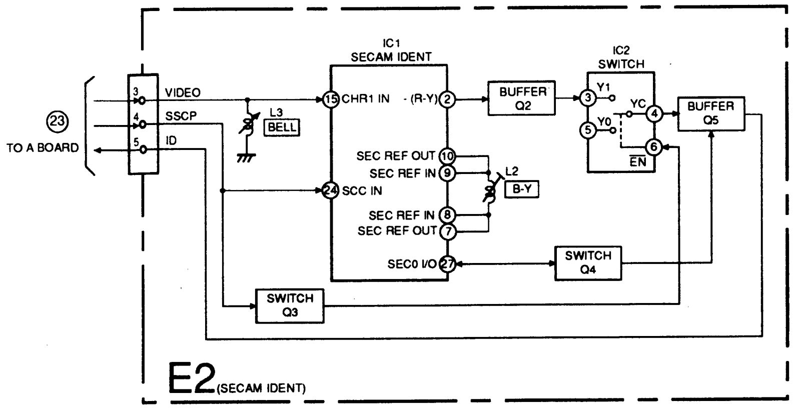

Q (A/D CONVERTER, NOISE REDUCTION BENDING (BACK END).)
CN2145(1/2)
Y50 ①
U50 ②
V50 ③
SSCP50 ⑦
Y
B-Y
R-Y
AMP Q01, 02
FL01
LPF
BUFFER Q14
D13 LEVEL SHIFT
IC01 A/D CONVERTER
INY
INU
INV
CLP
HREF
CLK
D7
D0
D'3
D'0
IC02 D-RAM
D11
D0
Q11
Q0
SWCK
RSTW
WE
IE
SRCK
RSTR
RE
IC03 D-RAM
IC04 NOISE REDUCTION
VA7
VA1
VA0
VA11
VA8
VB11
VB0
CLK
RSTR
RE2
IN VD
ORIB
ORIA
VC7
VC3
VC2
VC0
VC11
VC8
VD11
VD1
VD0
UPCL
UPDA
BLN
IC17 BENDING (BACK END)
UV1.0
UV1.3
Y1.0
Y1.7
Y2.0
Y2.7
UV2.0
UV2.3
RE2.0
RE1.0
RSTP
UPCL
UPDA
BLN
CLK
AY
AU
AV
RES2 IN
RES1 IN
Y0.0
Y0.5
Y0.6
Y0.7
UV0.0
UV0.3
FL11
LPF
BUFFER Q20
BUFFER Q16
MUTE Q24
FL10
AMP Q12,13
FL09
AMP Q21,22
CN2145(2/2)
Y100
VM OUT
U100
V100
TO A BOARD ⑤
IC11 +5V REG
+9V
+5V DF
IC08 +5V REG
+5V
IC14 +5V REG
+5V(VPLLD)
IC18 +5V REG
+5V DA
CS100V ⑩
VP100 ⑬
HP100 ⑯
TO A BOARD ⑤
⑤
㉝
ZOOM ⑨
SDA ⑪
SCL ⑫
HDFL
UPBUS
VP/50 ⑧
RESET ⑭
IC06 ECO-2 CONTROL
SWCI
WEI
RSTW2
WE2
IE2
VACO
LLDFL
LLE
LLD
HRD
HRA/BLNA
IEI
RSW1
RE1
RE2
SRC1
BLND
HDFL
VDFL
WRD
ALE
P0
P7
HRDFL
SWITCH Q17
8
ECOBUS
RESET SWITCH Q18
IC07 MICRO-CONTROLOR
P12
P14
P23
P24
ZOOM
WIDE
INTON
WRN
RDN
ALE
P00
P07
RST
P33
SCL
SDA
T0
T1
P10
TXD
PXD
0
1
2
P25
P22
P11
P13
P15
P27
TX1
TX2
SWITCH Q09
L06
+5V
D03
L5
D12
LIMITTER
+5V
IC13 SWITCH
IC15 SWITCH
L07
AMP Q11
36MHz
IC16 BUFFER
IC19 SWITCH
D04 SWITCH
IC20 SWITCH
AMP Q08
12/ 13.5MHz
IC10 BUFFER
IC09 BUFFER
IC12 PLL
IC21 SWITCH
IC22 SWITCH
L07
BUFFER Q10

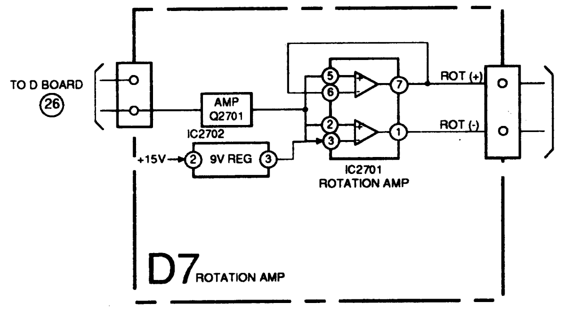
BLOCK DIAGRAMS (5)


CN0403
12V
SWITCH ON MUTE Q705, D707
IC705 VIDEO OUT (RED)
VB
VI
IK
VF
VO
VOF
STANDBY SW Q703
IC704 VIDEO OUT (GREEN)
STANDBY SW Q702
IC703 VIDEO OUT (BLUE)
STANDBY SW Q701
VOLTAGE MONITOR SWITCH OFF DELAY Q704, 706
+12V
R
G
IK
B
⑧ TO A BOARD
J701
G4
G2
CV
KR
KG
KB
H1
H2
RV704 H STAT
RV701 G2 ADJ
+200V
G2 (1000V)
FV
㉕ TO D BOARD T805 (FBT)
CN0421
㉓ TO D BOARD
C (VIDEO OUT, G2 REG)

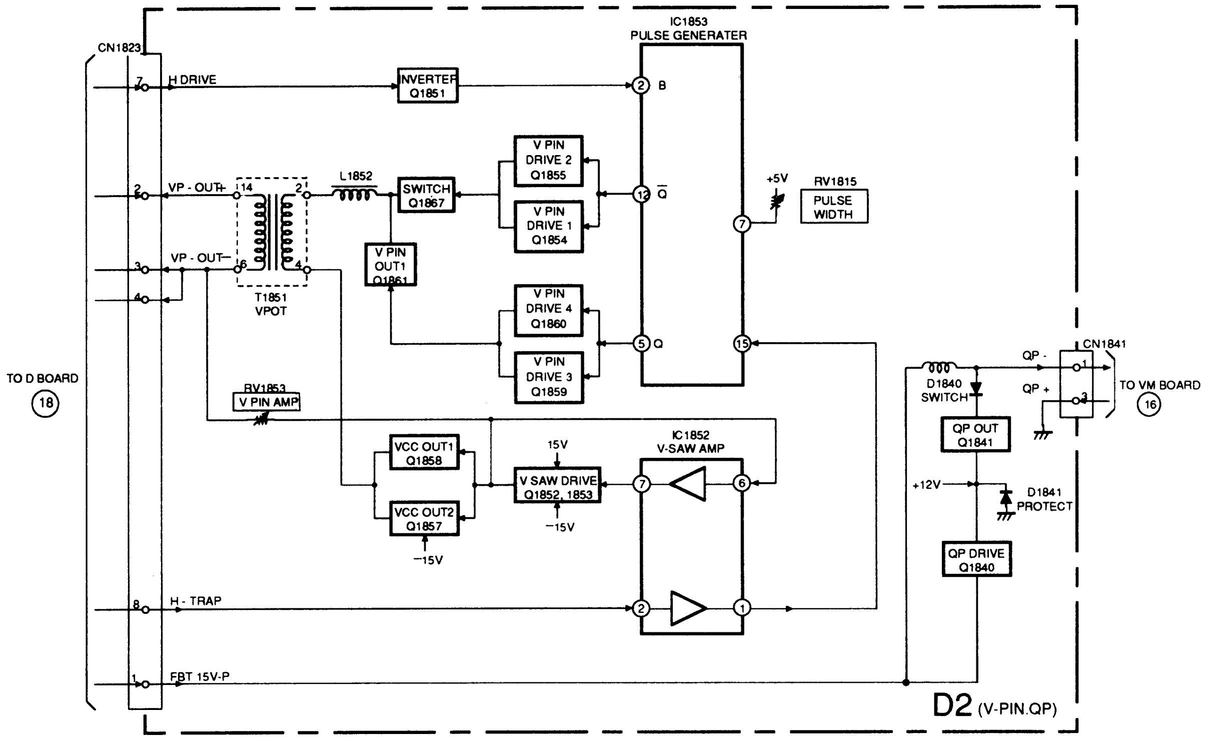

V901 PICTURE TUBE
H
KR KG KB G2 CV G4
HV
㉔ TO D BOARD T805(FBT)

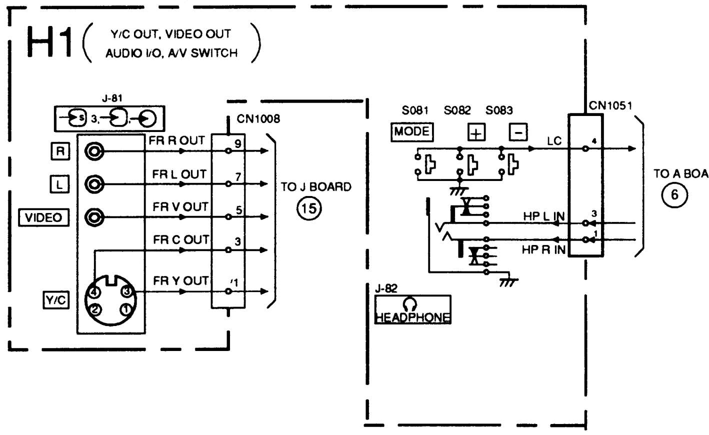

CN1830
QP-
QP+
⑯ TO D2 BOARD
CN1819
VM OUT
VM MUTE
⑨ TO A BOARD
135V
+12V
DRIVE SWITCH Q1709
AMP1-4 Q11701,1702,1704,1706
BUFFER Q1707
VM DRIVE Q1703,1705
VM MUTE SW Q1708
VM
QP
NECK ASSY
VM (VM AMP)

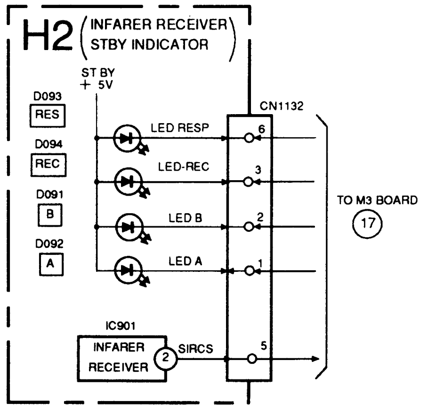

VIDEO
SSCP
ID
㉓ TO A BOARD
L3 BELL
IC1 SECAM IDENT
CHR1 IN
(R-Y)
SEC REF OUT
SEC REF IN
SCC IN
SEC REF IN
SEC REF OUT
SEC0 I/O
BUFFER Q2
IC2 SWITCH
Y1
Y0
YC
EN
BUFFER Q5
L2 B-Y
SWITCH Q4
SWITCH Q3
E2 (SECAM IDENT)


TO D BOARD ㉖
AMP Q2701
IC2702
+15V
9V REG
IC2701 ROTATION AMP
ROT (+)
ROT (-)
D7 ROTATION AMP

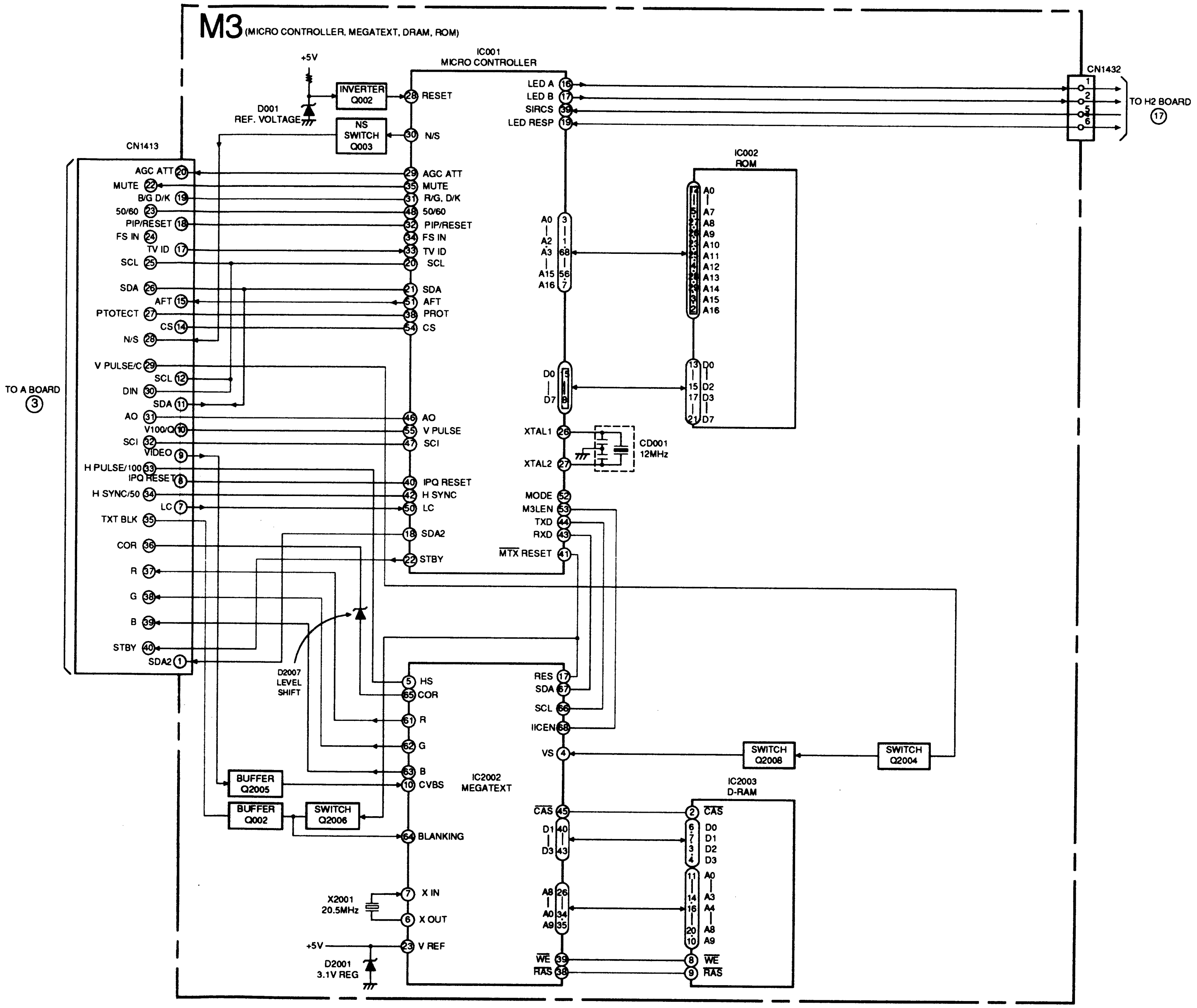
BLOCK DIAGRAMS (6)


CN1823
H DRIVE
VP - OUT+
VP - OUT-
H - TRAP
FBT 15V-P
TO D BOARD ⑱
INVERTER Q1851
IC1853 PULSE GENERATER
L1852
SWITCH Q1867
T1851 VPOT
V PIN OUT1 Q1861
V PIN DRIVE 2 Q1855
V PIN DRIVE 1 Q1854
V PIN DRIVE 4 Q1860
V PIN DRIVE 3 Q1859
+5V
RV1815 PULSE WIDTH
RV1853 V PIN AMP
VCC OUT1 Q1858
VCC OUT2 Q1857
-15V
15V
V SAW DRIVE Q1852, 1853
IC1852 V-SAW AMP
D1840 SWITCH
QP OUT Q1841
+12V
D1841 PROTECT
QP DRIVE Q1840
CN1841
QP -
QP +
TO VM BOARD ⑯
D2 (V-PIN,QP)

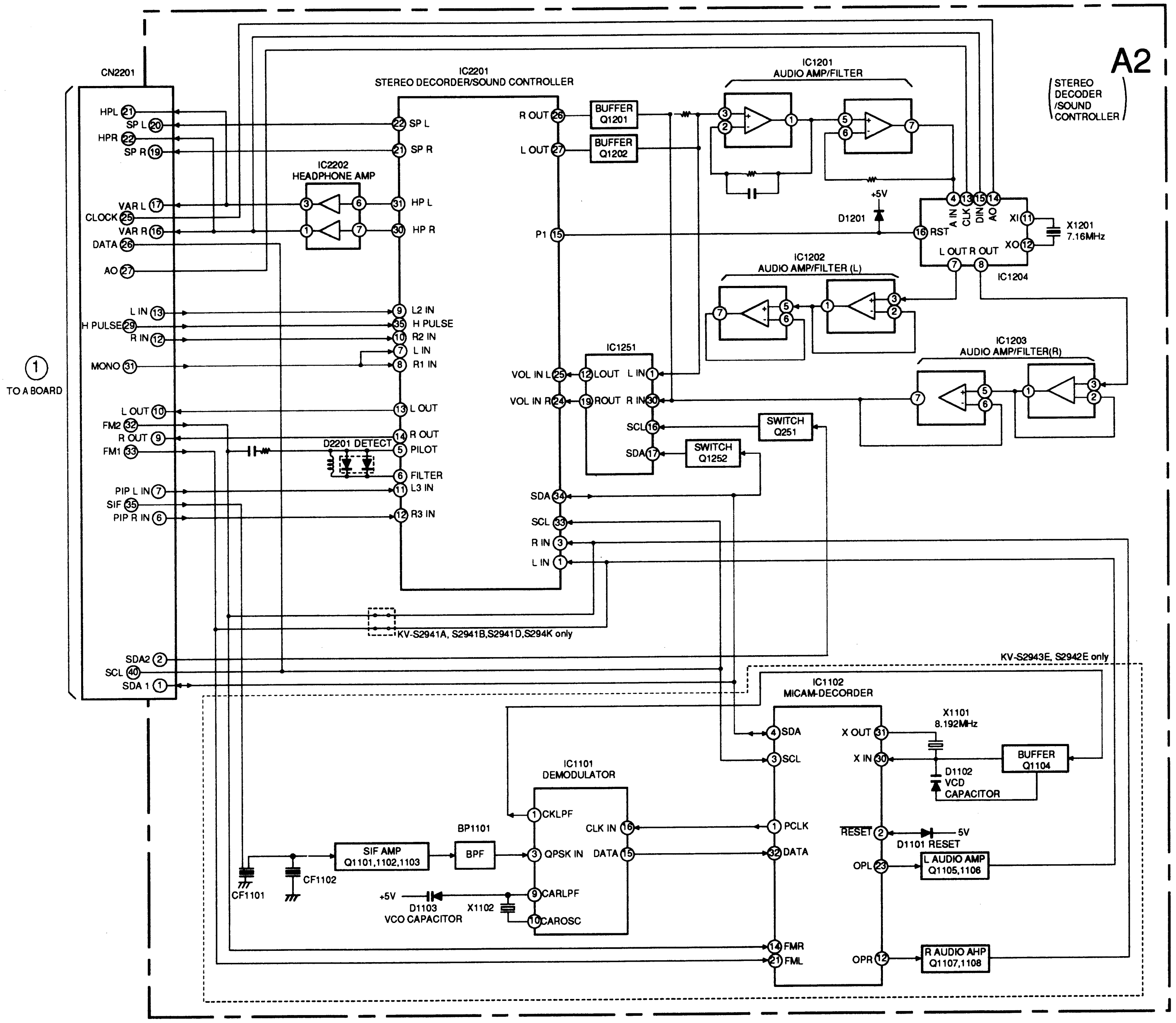

H1 (Y/C OUT, VIDEO OUT AUDIO I/O, A/V SWITCH)
J-81
R
L
VIDEO
Y/C
CN1008
FR R OUT
FR L OUT
FR V OUT
FR C OUT
FR Y OUT
TO J BOARD ⑮
S081 S082 S083
MODE
LC
HP L IN
HP R IN
J-82 HEADPHONE
CN1051
TO A BOARD ⑥


H2 (INFARER RECEIVER STBY INDICATOR)
ST BY + 5V
D093 RES
D094 REC
D091 B
D092 A
LED RESP
LED-REC
LED B
LED A
CN1132
IC901 INFARER RECEIVER
SIRCS
TO M3 BOARD ⑰

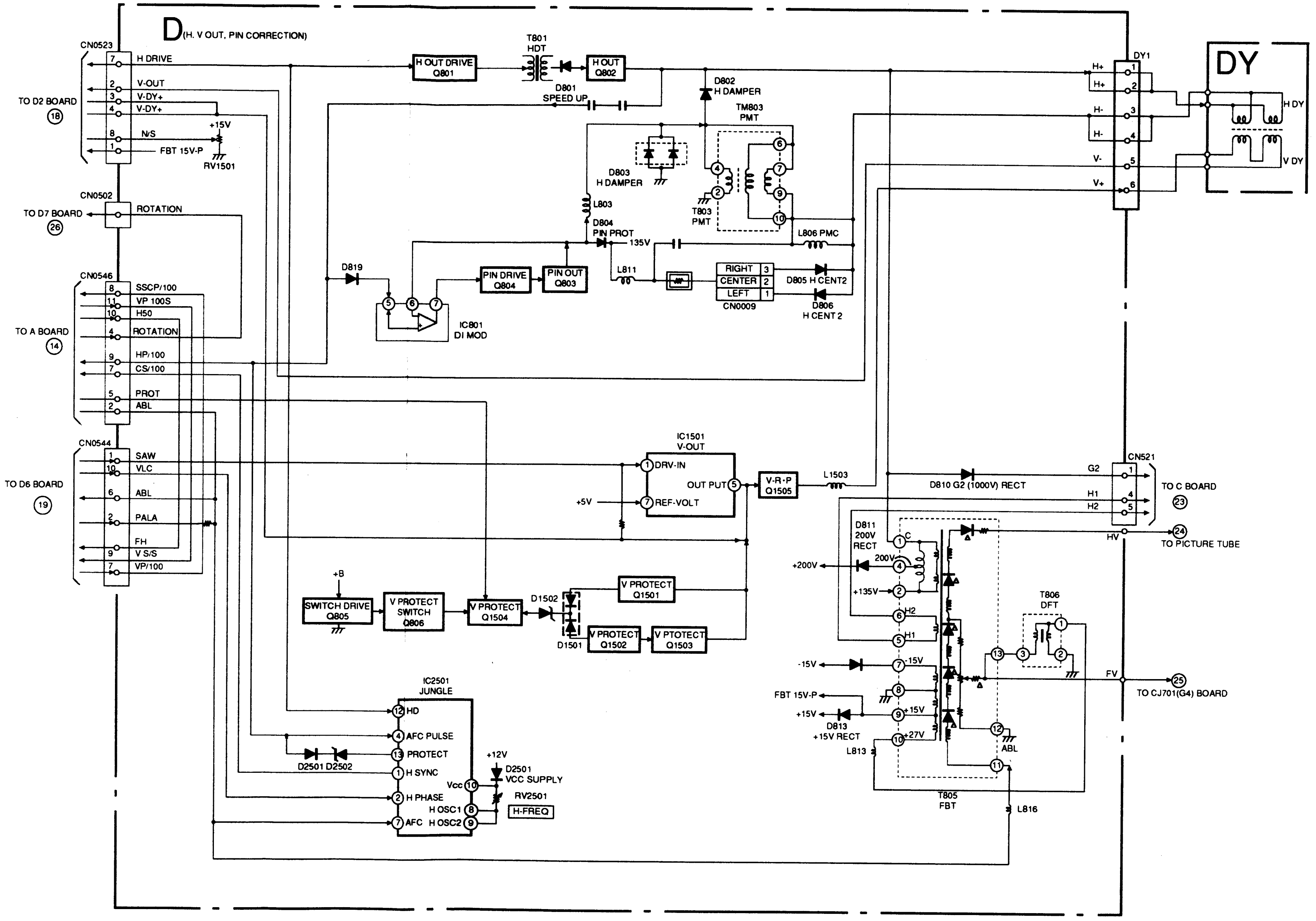
BLOCK DIAGRAMS (7)


M3 (MICRO CONTROLLER, MEGATEXT, DRAM, ROM)
IC001
MICRO CONTROLLER
+5V
INVERTER Q002
D001 REF. VOLTAGE
NS SWITCH Q003
RESET
N/S
LED A
LED B
SIRCS
LED RESP
CN1432
TO H2 BOARD ⑰
CN1413
TO A BOARD ③
AGC ATT
MUTE
B/G D/K
50/60
PIP/RESET
FS IN
TV ID
SCL
SDA
AFT
PTOTECT
CS
N/S
V PULSE/C
DIN
AO
V100/Q
SCI
VIDEO
H PULSE/100
IPQ RESET
H SYNC/50
LC
TXT BLK
COR
R
G
B
STBY
SDA2
R/G, D/K
PROT
V PULSE
H SYNC
IC002
ROM
A0
A2
A3
A15
A16
A7
A8
A9
A10
A11
A12
A13
A14
D0
D2
D3
D7
XTAL1
XTAL2
CD001 12MHz
MODE
M3LEN
TXD
RXD
MTX RESET
D2007 LEVEL SHIFT
HS
RES
IICEN
VS
SWITCH Q2008
SWITCH Q2004
BUFFER Q2005
BUFFER Q002
SWITCH Q2006
CVBS
IC2002 MEGATEXT
BLANKING
X2001 20.5MHz
X IN
X OUT
+5V
V REF
D2001 3.1V REG
IC2003 D-RAM
CAS
D1
D3
D0
D2
A4
A8
A9
WE
RAS

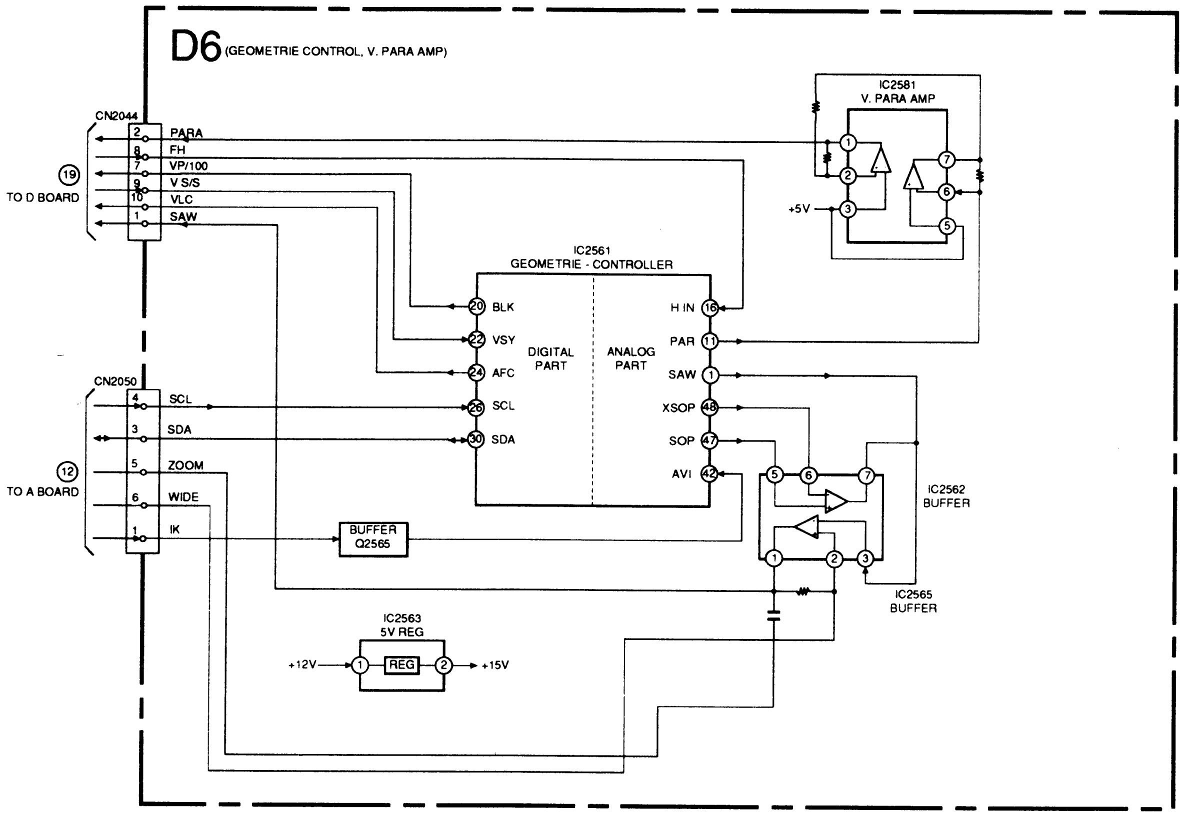
BLOCK DIAGRAMS (8)


A2
STEREO DECODER /SOUND CONTROLLER
CN2201
① TO A BOARD
HPL ㉑
SP L ⑳
HPR ㉒
SP R ⑲
VAR L ⑰
CLOCK ㉕
VAR R ⑯
DATA ㉖
AO ㉗
L IN ⑬
H PULSE ㉙
R IN ⑫
MONO ㉛
L OUT ⑩
FM2 ㉜
R OUT ⑨
FM1 ㉝
PIP L IN ⑦
SIF ㉟
PIP R IN ⑥
SDA2 ②
SCL ㊵
SDA 1 ①
IC2201
STEREO DECORDER/SOUND CONTROLLER
IC2202
HEADPHONE AMP
SP L
SP R
HP L
HP R
L2 IN
H PULSE
R2 IN
L IN
R1 IN
L OUT
R OUT
PILOT
FILTER
L3 IN
R3 IN
D2201 DETECT
R OUT
L OUT
P1
VOL IN L
VOL IN R
SDA
SCL
R IN
L IN
BUFFER Q1201
BUFFER Q1202
IC1201
AUDIO AMP/FILTER
+5V
D1201
A IN
CLK
DIN
AO
XI
XO
RST
L OUT R OUT
IC1204
X1201
7.16MHz
IC1202
AUDIO AMP/FILTER (L)
IC1251
LOUT
L IN
ROUT
R IN
SCL
SDA
SWITCH Q251
SWITCH Q1252
IC1203
AUDIO AMP/FILTER(R)
KV-S2941A, S2941B,S2941D,S294K only
KV-S2943E, S2942E only
IC1102
MICAM-DECORDER
SDA
SCL
PCLK
DATA
FMR
FML
X OUT
X IN
X1101
8.192MHz
BUFFER Q1104
D1102
VCD CAPACITOR
RESET
D1101 RESET
5V
OPL
L AUDIO AMP Q1105,1106
OPR
R AUDIO AHP Q1107,1108
IC1101
DEMODULATOR
CKLPF
QPSK IN
CARLPF
CAROSC
CLK IN
DATA
BP1101
BPF
SIF AMP Q1101,1102,1103
CF1101
CF1102
+5V
D1103
VCO CAPACITOR
X1102

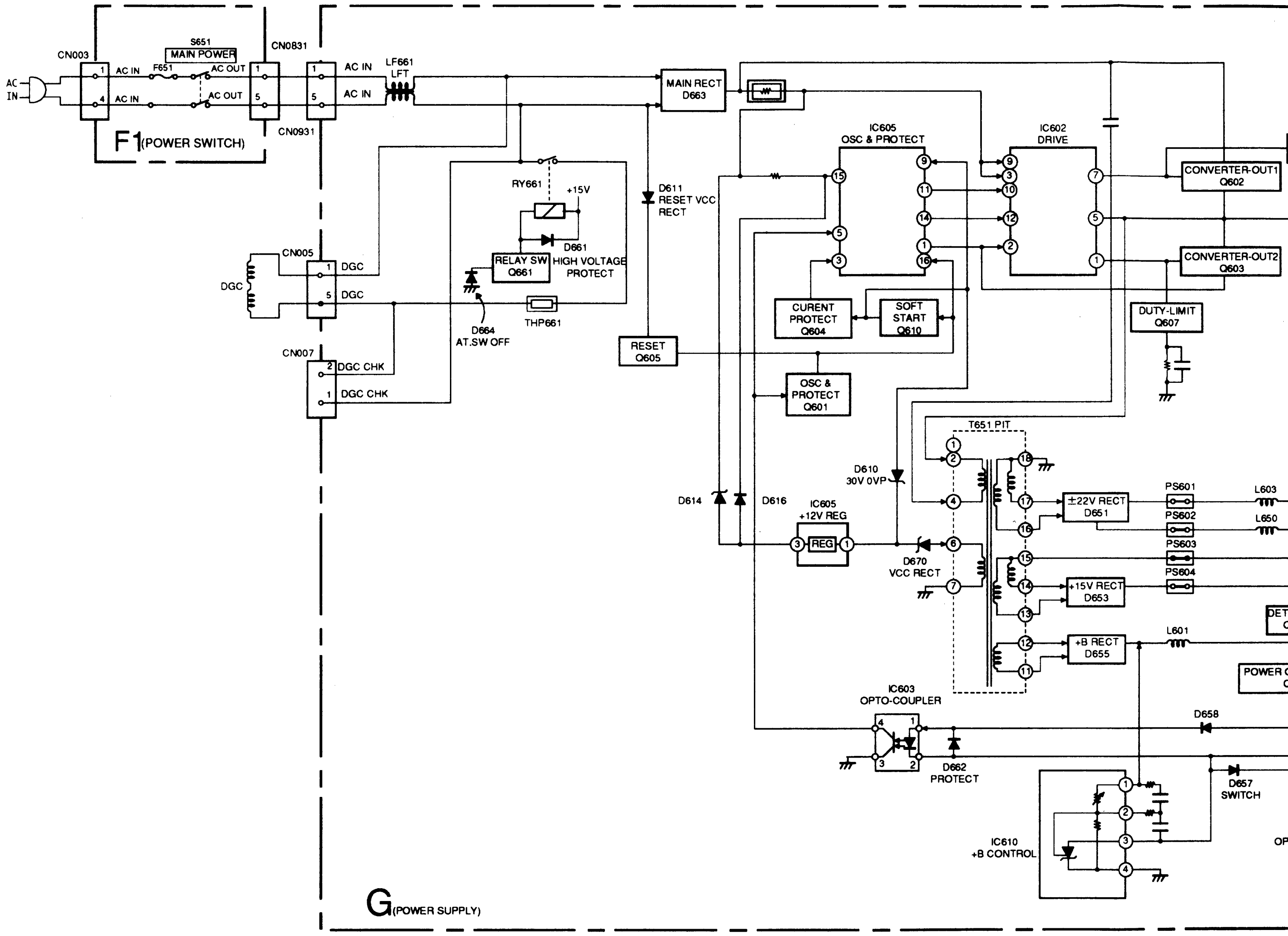
BLOCK DIAGRAMS (9)

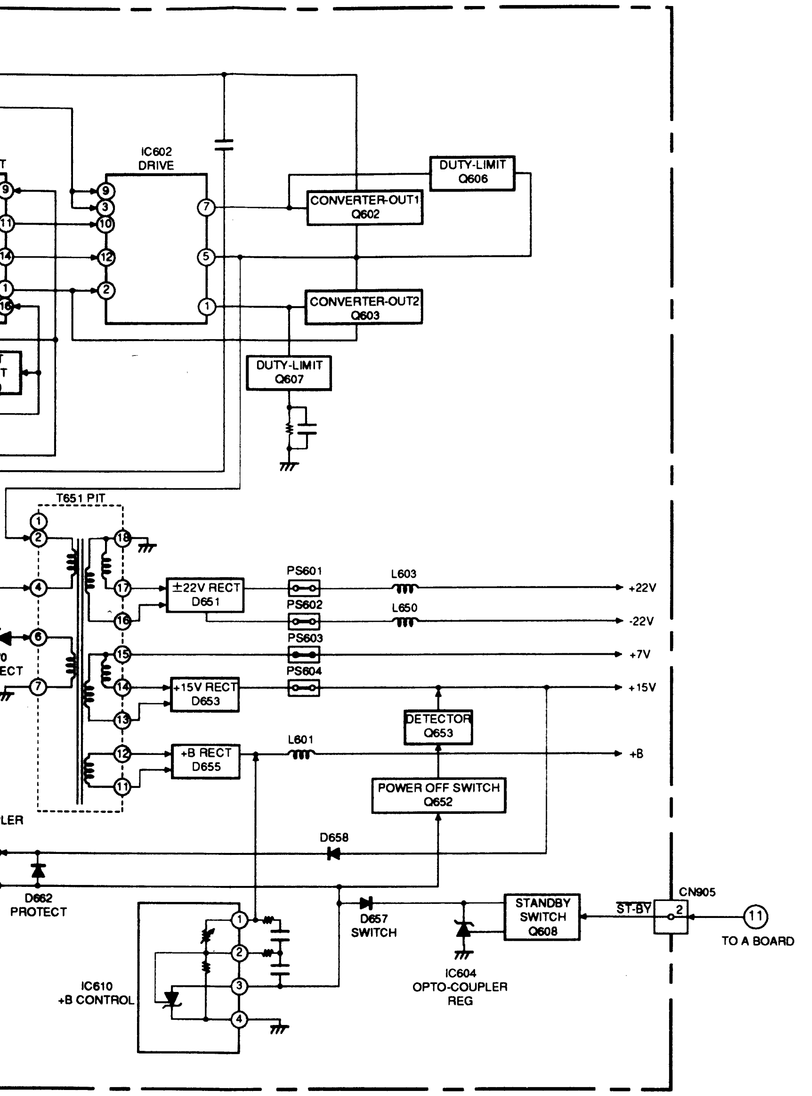

D (H. V OUT, PIN CORRECTION)
CN0523
TO D2 BOARD
⑱
7 H DRIVE
2 V-OUT
3 V-DY+
4 V-DY+
8 N/S
1 FBT 15V-P
+15V
RV1501
CN0502
TO D7 BOARD
㉖
ROTATION
CN0546
TO A BOARD
⑭
8 SSCP/100
11 VP 100S
10 H50
4 ROTATION
9 HP/100
7 CS/100
5 PROT
2 ABL
CN0544
TO D6 BOARD
⑲
1 SAW
10 VLC
6 ABL
2 PALA
FH
9 V S/S
7 VP/100
H OUT DRIVE Q801
T801 HDT
H OUT Q802
D801 SPEED UP
D802 H DAMPER
TM803 PMT
D803 H DAMPER
T803 PMT
L803
D804 PIN PROT
135V
L806 PMC
D819
IC801 DI MOD
PIN DRIVE Q804
PIN OUT Q803
L811
RIGHT 3
CENTER 2
LEFT 1
CN0009
D805 H CENT2
D806 H CENT 2
DY1
H+ 1
H+ 2
H- 3
H- 4
V- 5
V+ 6
DY
H DY
V DY
IC1501 V-OUT
DRV-IN
OUT PUT
REF-VOLT
+5V
V-R-P Q1505
L1503
D810 G2 (1000V) RECT
CN521
G2 1
H1 4
H2 5
TO C BOARD
㉓
HV
TO PICTURE TUBE
㉔
D811 200V RECT
+200V
200V
C
+135V
H2
H1
-15V
FBT 15V-P
+15V
D813 +15V RECT
+27V
L813
T806 DFT
ABL
FV
TO CJ701(G4) BOARD
㉕
T805 FBT
L816
+B
SWITCH DRIVE Q805
V PROTECT SWITCH Q806
V PROTECT Q1504
D1502
D1501
V PROTECT Q1501
V PROTECT Q1502
V PTOTECT Q1503
IC2501 JUNGLE
HD
AFC PULSE
PROTECT
H SYNC
H PHASE
AFC
Vcc
H OSC1
H OSC2
D2501 D2502
+12V
D2501 VCC SUPPLY
RV2501
H-FREQ

BLOCK DIAGRAMS (10)

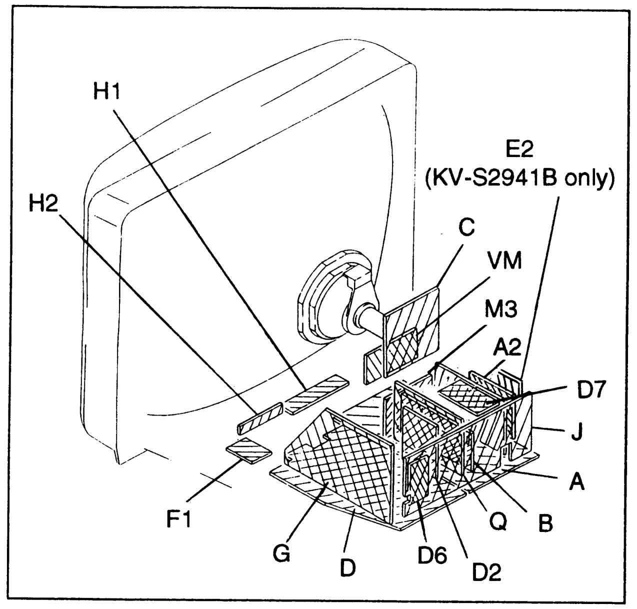

D6 (GEOMETRIE CONTROL, V. PARA AMP)
CN2044
PARA
FH
VP/100
V S/S
VLC
SAW
⑲
TO D BOARD
IC2581
V. PARA AMP
+5V
IC2561
GEOMETRIE - CONTROLLER
BLK
VSY
AFC
SCL
SDA
DIGITAL PART
ANALOG PART
H IN
PAR
SAW
XSOP
SOP
AVI
IC2562
BUFFER
IC2565
BUFFER
CN2050
SCL
SDA
ZOOM
WIDE
IK
⑫
TO A BOARD
BUFFER
Q2565
IC2563
5V REG
+12V
REG
+15V

BLOCK DIAGRAMS (11)


AC IN
CN003
AC IN
S651
MAIN POWER
F651
AC OUT
CN0831
CN0931
F1 (POWER SWITCH)
LF661
LFT
MAIN RECT
D663
IC605
OSC & PROTECT
IC602
DRIVE
CONVERTER-OUT1
Q602
CONVERTER-OUT2
Q603
RY661
+15V
D661
HIGH VOLTAGE PROTECT
RELAY SW
Q661
D611
RESET VCC RECT
CN005
DGC
D664
AT.SW OFF
THP661
CURENT PROTECT
Q604
SOFT START
Q610
DUTY-LIMIT
Q607
RESET
Q605
OSC & PROTECT
Q601
CN007
DGC CHK
T651 PIT
D610
30V OVP
D614
D616
IC605
+12V REG
REG
D670
VCC RECT
±22V RECT
D651
PS601
PS602
PS603
PS604
L603
L650
+15V RECT
D653
+B RECT
D655
L601
IC603
OPTO-COUPLER
D662
PROTECT
D658
D657
SWITCH
IC610
+B CONTROL
G (POWER SUPPLY)


IC602
DRIVE
DUTY-LIMIT
Q606
CONVERTER-OUT1
Q602
CONVERTER-OUT2
Q603
DUTY-LIMIT
Q607
T651 PIT
±22V RECT
D651
PS601
PS602
PS603
PS604
L603
L650
+22V
-22V
+7V
+15V
+15V RECT
D653
DETECTOR
Q653
+B RECT
D655
L601
+B
POWER OFF SWITCH
Q652
D658
D662
PROTECT
D657
SWITCH
STANDBY
SWITCH
Q608
ST-BY
CN905
TO A BOARD
IC604
OPTO-COUPLER
REG
IC610
+B CONTROL
LER
ECT

5-2. CIRCUIT BOARDS LOCATION


H1
H2
E2
(KV-S2941B only)
C
VM
M3
A2
D7
J
A
B
Q
D2
D6
D
G
F1

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted.
  pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power 1/4W

- Chips resistors are 1/10W.
- All resistors are in ohms.
  kΩ=1000Ω, MΩ=1000KΩ
- ⊟: nonflammable resistor.
- ⊟: fusible resistor.
- △: internal component.
- ▭: panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground. (cool)
- ⏚ : earth-chassis. (hot)

- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a PALcolour-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- Circled numbers are waveform references.
- ▭ : B+ line.
- ▭ : B– line.
- ⇛ : signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

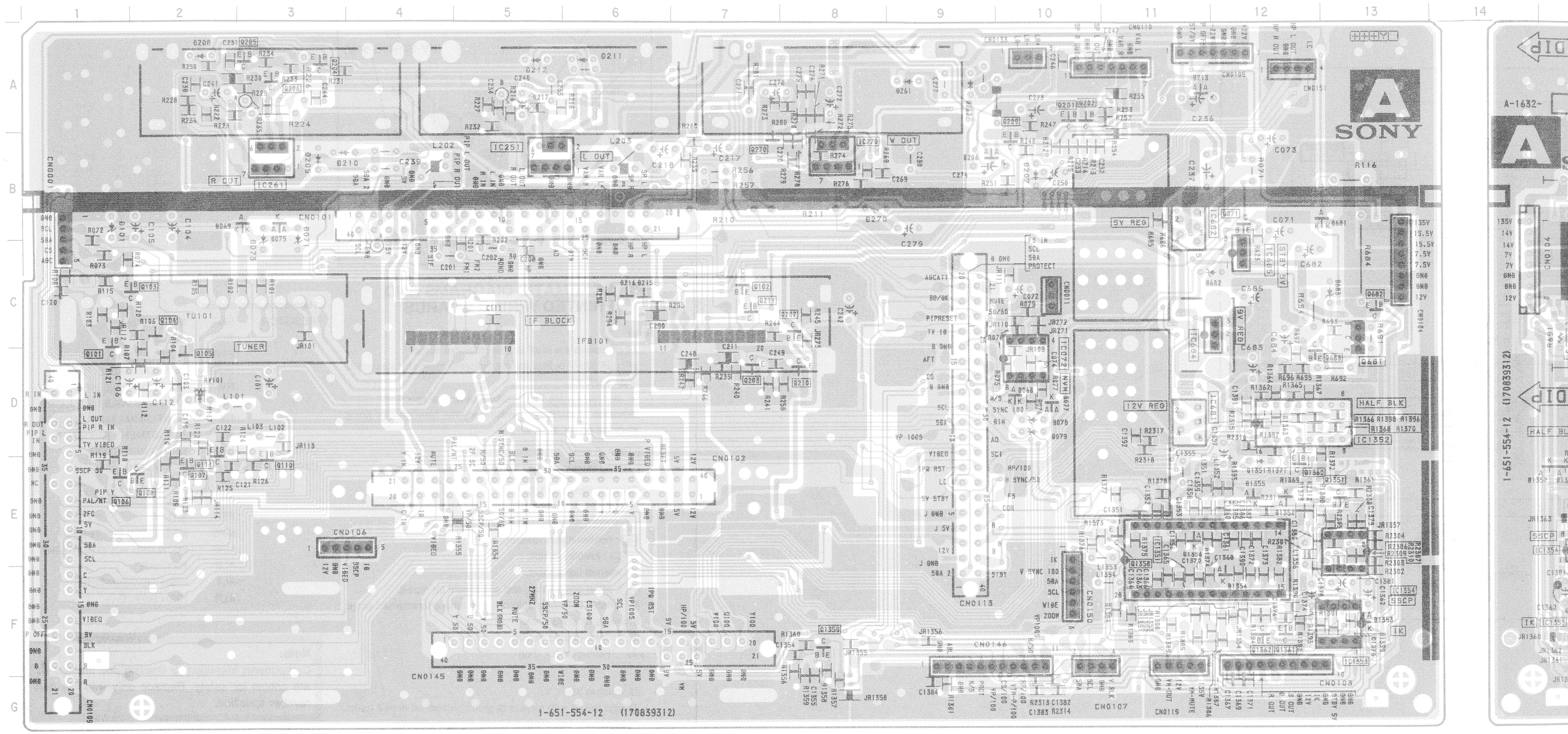
Note:
Components identified by shading and marked ⚠ are critical for safety. Replace only with the part number specified.

Note:
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

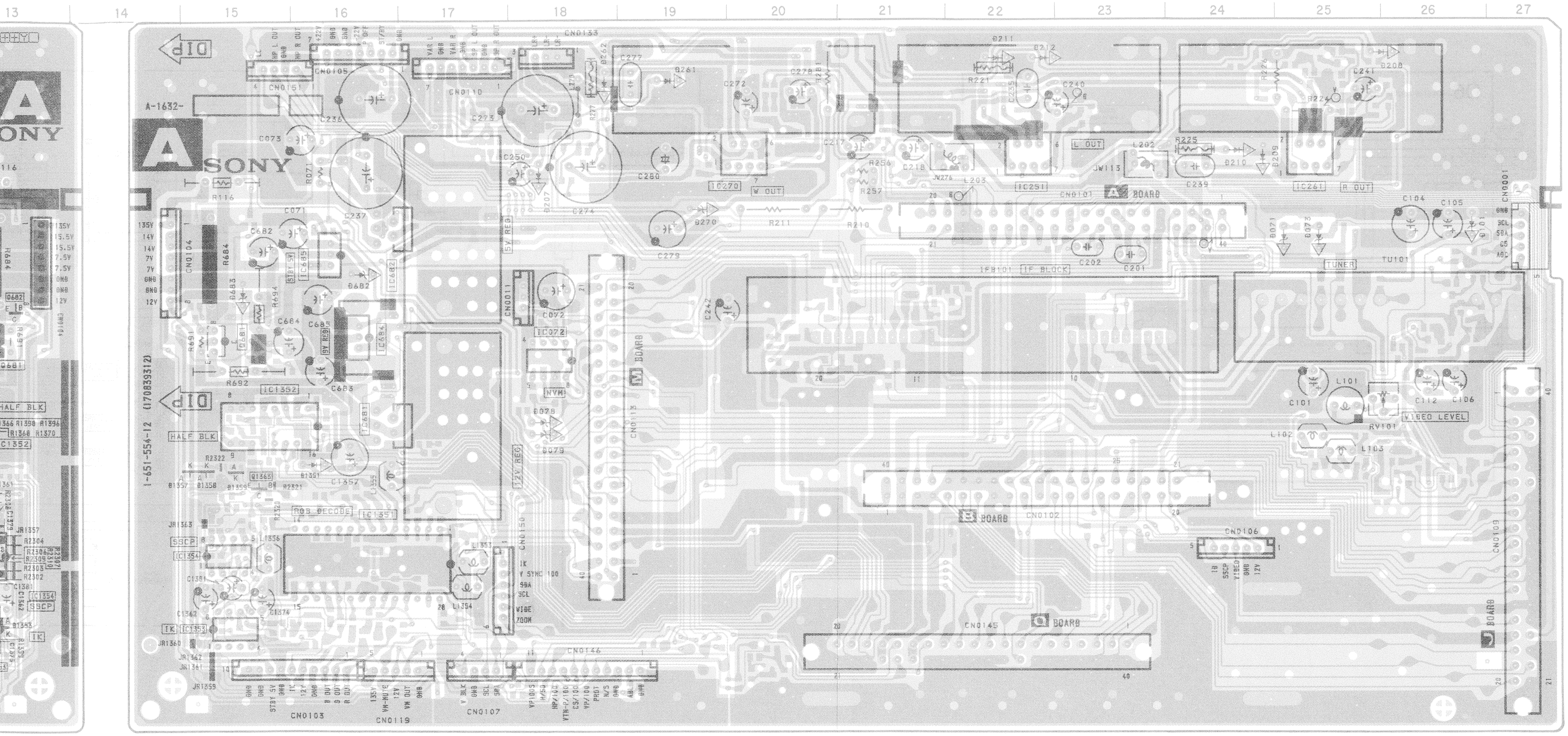
A [TUNER, SIF, VIF, RGB RECODER, V PULSE AMP, AUDIO AMP]

— A Board — <Conductor Side>

— A Board —


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
SONY
A
A-1632-
CN0101
TU101
TUNER
IF BLOCK
IFB101
IC251
IC261
IC270
R OUT
L OUT
W OUT
5V REG
12V REG
HALF BLK
IC1352
CN0102
CN0103
CN0105
CN0106
CN0107
CN0109
CN0113
CN0115
CN0145
CN0146
CN0150
CN0151
CN0104
1-651-554-12 (170839312)

— A Board — <Component Side>


13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
A SONY
A-1632-
1-651-554-12 (1708393I2)
DIP
CN0105
CN0151
CN0110
CN0133
CN0104
CN0011
CN0113
CN0150
CN0101
CN0102
CN0106
CN0145
CN0146
CN0103
CN0119
CN0107
CN0109
CN0001
IC0270
IC0251
IC0261
IC1352
IC1351
IC1353
IC1354
IC0682
IC0684
IC0685
IC0681
IC0072
W OUT
L OUT
R OUT
IF BLOCK
IFB101
TUNER
TU101
VIDEO LEVEL
RV101
L101
L102
L103
C101
C104
C105
C106
C112
C201
C202
C239
C242
C279
C280
C272
C277
C278
C240
C241
C250
C236
C237
C273
C274
C071
C072
C073
C682
C683
C684
C685
C1352
C1361
C1362
D211
D212
D208
D209
D210
D261
D262
D270
D207
D078
D079
D682
D683
D021
D023
D101
R221
R224
R225
R226
R211
R210
R256
R257
R261
R071
R116
R684
R691
R692
R694
L202
L203
JW113
JW276
HALF BLK
RGB DECODE
SSCP
IK
M BOARD
A BOARD
B BOARD
C BOARD
J BOARD
5V REG
12V REG
STBY 5V
9V REG
135V
14V
7V
GND
12V
IK
V SYNC 100
SDA
SCL
WIDE
ZOOM
STBY 5V
R OUT
G OUT
B OUT
VM-MUTE
VM OUT
V BLK
VP100S
H/50
HP/100
VTR-P/100
CS/100
YPV/100
PROT
N/S
ABL
SSCP
VIDEO
GND
SCL
SDA
CG
AGC

• ▨ : Pattern from the side which enables seeing.
• ▨ : Pattern of the rear side.

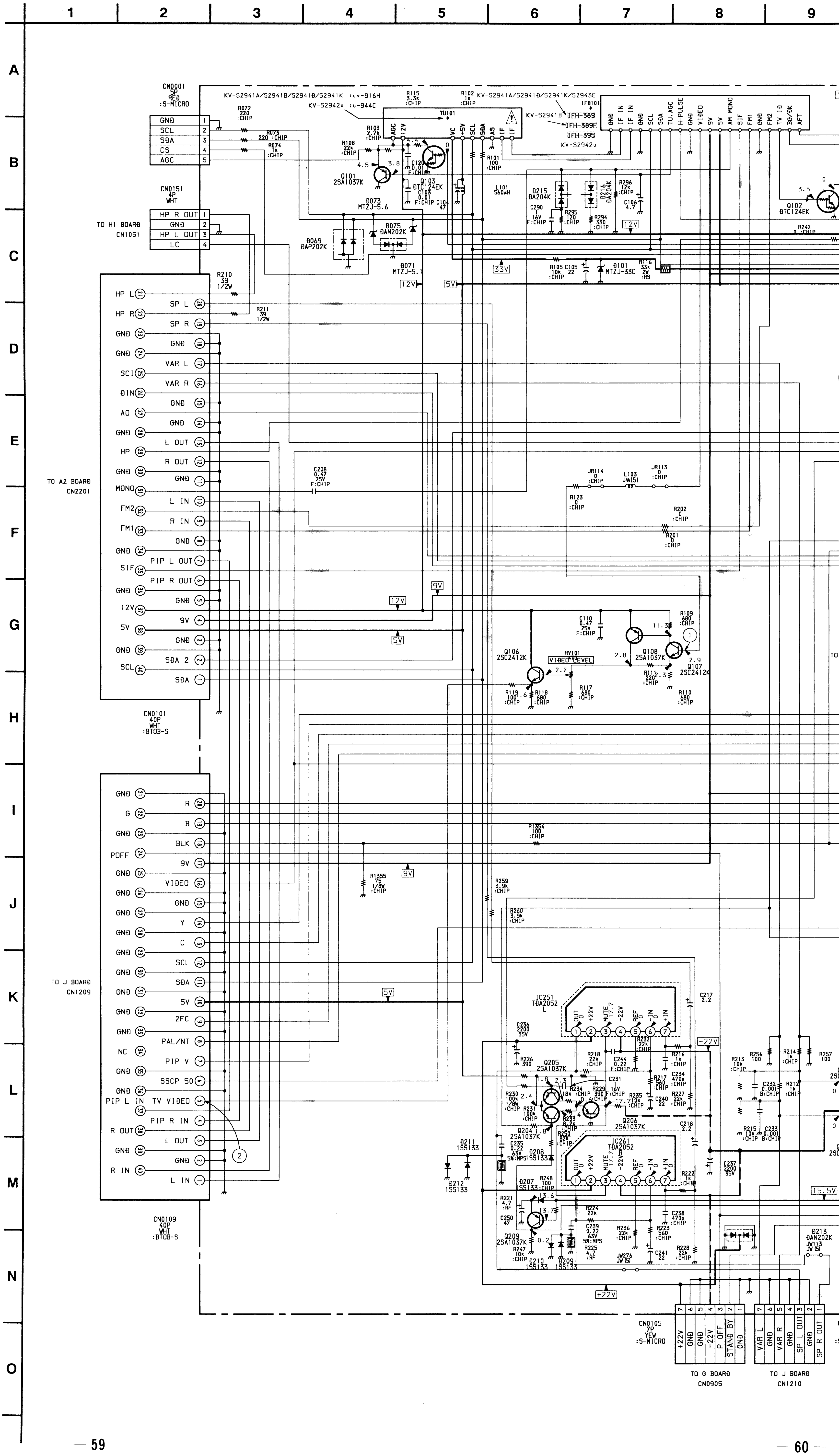
— A Board —

IC	
IC072	D-10
IC251	B-5
IC261	B-3
IC270	B-8
IC681	D-11
IC682	B-11
IC684	C-11
IC685	C-12
IC1351	E-11
IC1352	D-12
IC1353	F-13
IC1354	E-13

TRANSISTOR	
Q071	B-12
Q101	C-1
Q102	D-7
Q103	C-2
Q106	E-1
Q107	E-2
Q108	E-2
Q201	A-10
Q202	A-10
Q203	D-7
Q204	A-3
Q205	A-3
Q206	A-3
Q207	D-8
Q209	B-10
Q210	D-8
Q270	B-7
Q681	C-13
Q682	C-13
D683	D-12
Q1351	E-13
Q1358	E-11
Q1359	F-8
Q1360	E-12
Q1361	F-12
Q1362	F-12
Q1363	E-15

DIODE	
D068	D-10
D069	B-3
D071	B-3
D073	B-3
D075	B-3
D077	D-10
D078	D-10
D079	D-10
D101	B-1
D206	B-9
D207	B-10
D208	A-2
D209	B-3
D210	B-3
D211	A-6
D212	A-5
D213	A-11
D215	C-6
D216	C-6
D261	A-9
D262	A-9
D270	B-8
D681	B-13
D682	C-11
D683	C-12
D1351	E-11
D1352	E-12
D1353	F-13
D1354	F-12
D1355	E-12
D1356	E-11
D1357	E-15
D1358	E-15
D1359	E-15

VARIABLE RESISTOR	
RV101	D-2


1
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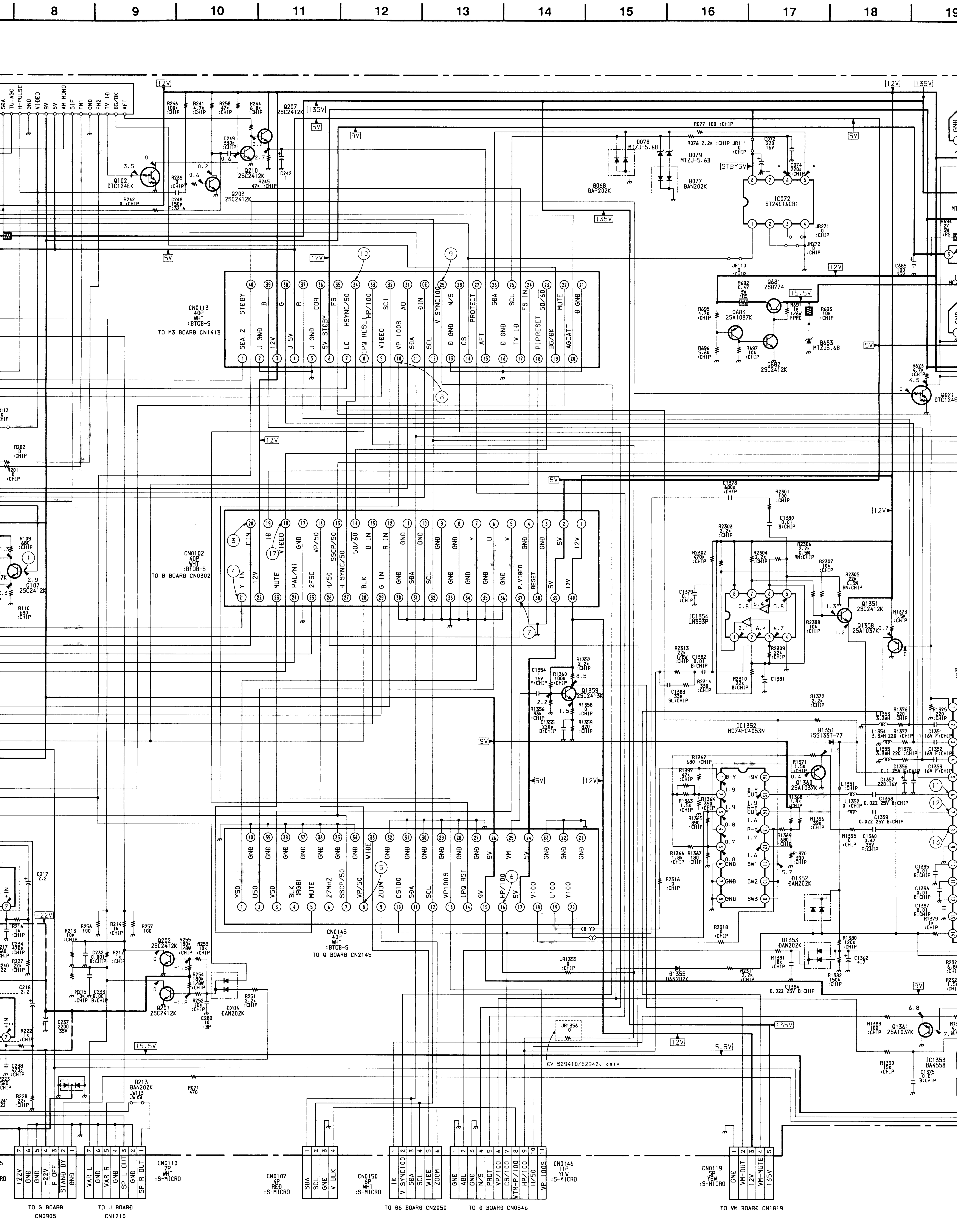
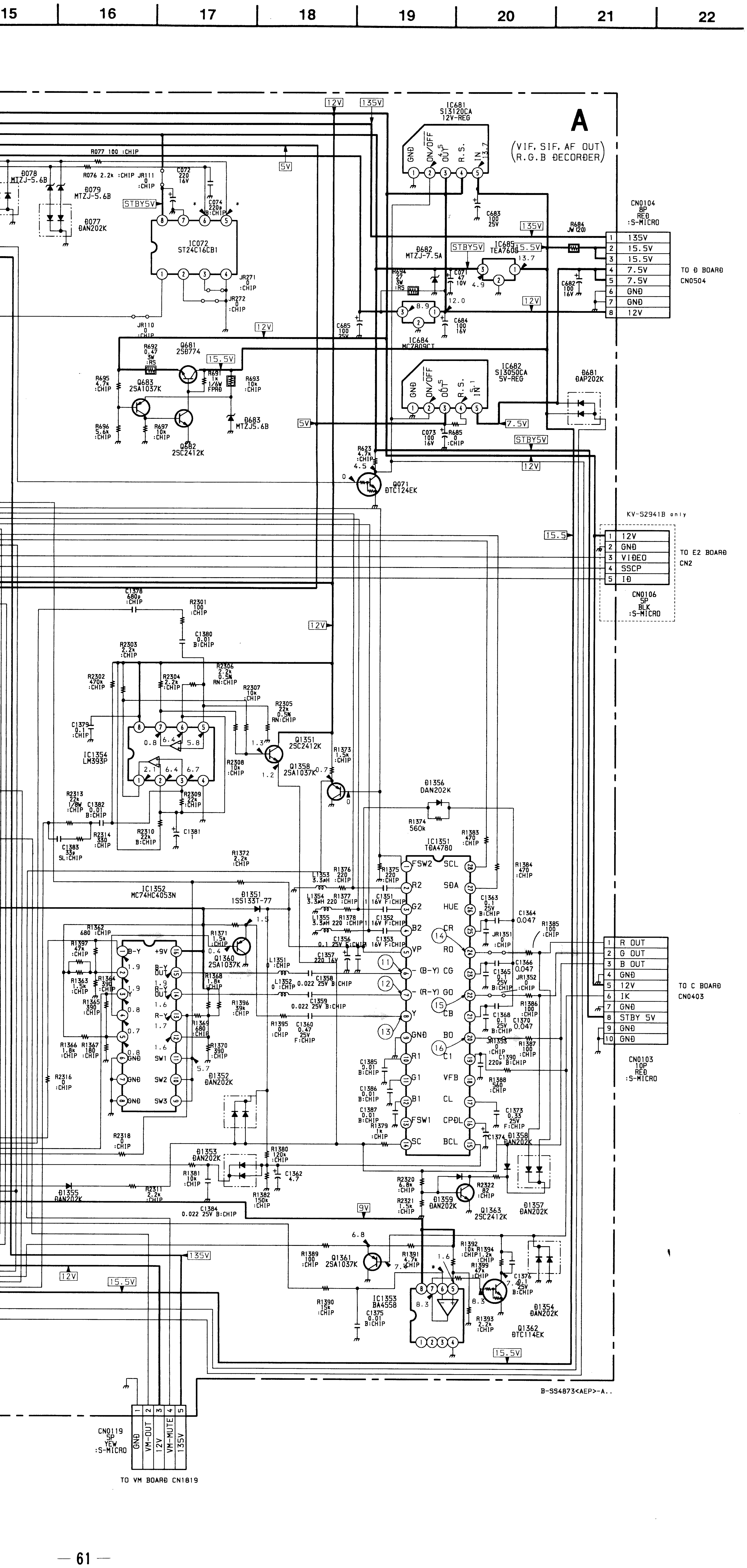
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
CN0001 5P RED :S-MICRO
GND
SCL
SDA
CS
AGC
KV-S2941A/S2941B/S2941D/S2941K :u-916H
KV-S2942u :u-944C
TU101
KV-S2941A/S2941D/S2941K/S2943E
IFB101
KV-S2941B
IFH-389
IFH-395
KV-S2942u
CN0151 4P WHT
HP R OUT
GND
HP L OUT
LC
TO H1 BOARD CN1051
Q101 2SA1037K
Q103 DTC124EK
D073 MTZJ-5.6
D075 DAN202K
D069 DAP202K
D071 MTZJ-5.1
L101 560uH
D215 DA204K
D216 DA204K
D101 MTZJ-33C
Q102 DTC124EK
TO A2 BOARD CN2201
TO J BOARD CN1209
CN0101 40P WHT :BTOB-S
CN0109 40P WHT :BTOB-S
Q106 2SC2412K
Q108 2SA1037K
Q107 2SC2412K
RV101 VIDEO LEVEL
IC251 TDA2052
IC261 TDA2052
Q205 2SA1037K
Q204 2SA1037K
Q206 2SA1037K
Q209 2SA1037K
D211 1SS133
D212 1SS133
D208 1SS133
D207 1SS133
D210 1SS133
D209 1SS133
D213 DAN202K
CN0105 7P YEW :S-MICRO
+22V
GND
GND
-22V
P OFF
STAND BY
GND
VAR L
GND
VAR R
GND
SP L OUT
GND
SP R OUT
TO G BOARD CN0905
TO J BOARD CN1210
12V
5V
9V
33V
-22V
+22V
15.5V

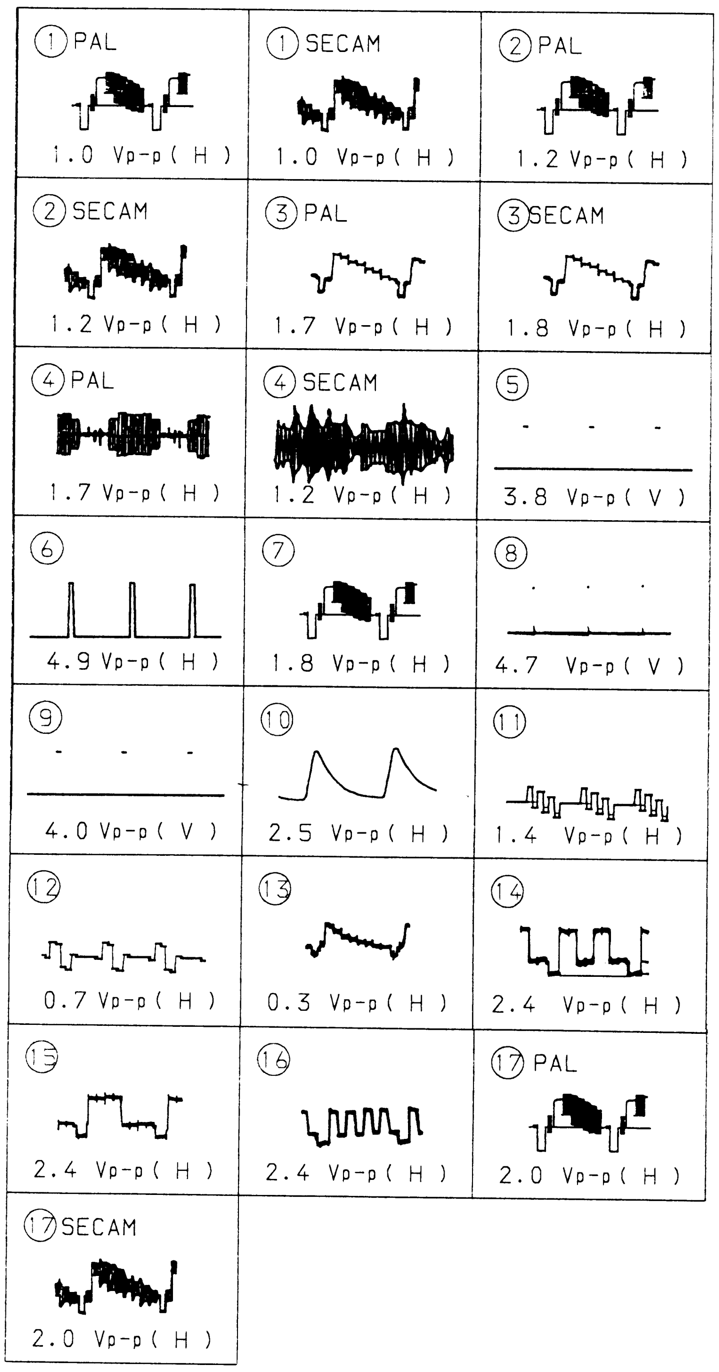

8
9
10
11
12
13
14
15
16
17
18
19
12V
135V
5V
9V
15.5V
STBY5V
SDA
TU.AGC
H-PULSE
GND
VIDEO
9V
5V
AM MONO
SIF
FM1
GND
FM2
TV ID
BG/DK
AFT
R246 100k :CHIP
R241 4.7k :CHIP
R258 47k :CHIP
R244 6.8k :CHIP
Q207 2SC2412K
C249 330p :CHIP
Q210 2SC2412K
R245 47k :CHIP
C242 1
Q102 DTC124EK
R239 0 :CHIP
C248 150p F:3216
Q203 2SC2412K
R242 0 :CHIP
R077 100 :CHIP
R076 2.2k :CHIP
JR111 0 :CHIP
C072 220 16V
D078 MTZJ-5.6B
D079 MTZJ-5.6B
D068 DAP202K
D077 DAN202K
C074 220p B:CHIP
IC072 ST24C16CB1
JR271 0 :CHIP
JR272 0 :CHIP
JR110 0 :CHIP
R692 0.47 3W :RS
Q681 2SB774
R691 1k 1/6W FPRO
R693 10k :CHIP
R695 4.7k :CHIP
Q683 2SA1037K
R696 5.6k :CHIP
R697 10k :CHIP
Q682 2SC2412K
D683 MTZJ5.6B
R623 4.7k :CHIP
Q071 DTC124E
C685 100 25V
R694 27 3W :RS
CN0113 40P WHT :BTOB-S TO M3 BOARD CN1413
STBY
B
G
R
COR
FS
HSYNC/50
HP/100
SCL
AO
DIN
V SYNC100
N/S
PROTECT
SDA
SCL
FS IN
50/60
MUTE
D GND
SDA 2
J GND
12V
J 5V
J GND
5V STBY
LC
IPQ RESET
VIDEO
VP 100S
SDA
SCL
V SYNC100
D GND
CS
AFT
D GND
TV ID
PIPRESET
BG/DK
AGCATT
CN0102 40P WHT :BTOB-S TO B BOARD CN0302
C IN
ID
VIDEO
GND
VP/50
SSCP/50
50/60
B IN
R IN
GND
Y
U
V
5V
12V
Y IN
MUTE
PAL/NT
2FSC
H/50
H SYNC/50
BLK
G IN
P.VIDEO
RESET
R109 680 :CHIP
Q107 2SC2412K
R110 680 :CHIP
R202 0 :CHIP
R201 0 :CHIP
C1378 680p :CHIP
R2301 100 :CHIP
C1380 0.01 B:CHIP
R2303 2.2k :CHIP
R2302 470k :CHIP
R2304 2.2k :CHIP
R2306 2.2k 0.5% RN:CHIP
R2307 10k :CHIP
R2305 22k 0.5% RN:CHIP
C1379 0.1 :CHIP
IC1354 LM393P
Q1351 2SC2412K
Q1358 2SA1037K
R1373 1.5k :CHIP
R2308 10k :CHIP
R2309 2.2k :CHIP
R2313 22k 1/8W :CHIP
C1382 0.01 B:CHIP
R2314 330 :CHIP
R2310 22k B:CHIP
C1381 1
C1383 33p SL:CHIP
R1357 2.2k :CHIP
C1354 16V F:CHIP
R1360 100k :CHIP
Q1359 2SC2413K
R1356 33k :CHIP
R1358 0 :CHIP
C1355 220p B:CHIP
R1359 820 :CHIP
IC1352 MC74HC4053N
D1351 1SS133T-77
R1372 2.2k :CHIP
R1362 680 :CHIP
R1397 47k :CHIP
R1371 1.5k :CHIP
Q1360 2SA1037K
R1363 1.5k :CHIP
R1364 390 :CHIP
R1365 390 :CHIP
R1368 1.8k :CHIP
R1369 680 :CHIP
R1366 1.8k :CHIP
R1367 180 :CHIP
R1370 390 :CHIP
R1396 39k :CHIP
D1352 DAN202K
R2316 0 :CHIP
B-Y
R-Y
B-Y OUT
R-Y OUT
+9V
SW1
SW2
SW3
L1353 3.3μH
R1376 220 :CHIP
R1375 220 :CHIP
L1354 3.3μH
R1377 220 :CHIP
C1351 16V F:CHIP
L1355 3.3μH
R1378 220 :CHIP
C1352 16V F:CHIP
C1356 0.1 25V B:CHIP
C1353 16V F:CHIP
L1351 0 :CHIP
C1357 220 16V
L1352 0 :CHIP
C1358 0.022 25V B:CHIP
C1359 0.022 25V B:CHIP
R1395 0 :CHIP
C1360 0.47 25V F:CHIP
C1385 0.01 B:CHIP
C1386 0.01 B:CHIP
C1387 0.01 B:CHIP
R1379 1k :CHIP
R2318 0 :CHIP
D1353 DAN202K
R1380 120k :CHIP
R1381 10k :CHIP
C1362 4.7
R1382 150k :CHIP
D1355 DAN202K
R2311 2.2k :CHIP
C1384 0.022 25V B:CHIP
JR1355 0 :CHIP
JR1356 0
KV-S2941B/S2942u only
R1389 100 :CHIP
Q1361 2SA1037K
R1390 15k :CHIP
IC1353 BA4558
C1375 0.01 B:CHIP
CN0145 40P WHT :BTOB-S TO Q BOARD CN2145
Y50
U50
V50
BLK (RGB)
MUTE
27MHZ
SSCP/50
VP/50
WIDE
ZOOM
CS100
SDA
SCL
VP100S
IPQ RST
9V
HP/100
5V
V100
U100
Y100
VM
C217 2.2
R216 1k :CHIP
C234 470p :CHIP
R227 22k :CHIP
C218 2.2
R222 1k :CHIP
C237 2200 35V
C238 470p :CHIP
R228 22k :CHIP
R256 100
R213 10k :CHIP
R214 1k :CHIP
R257 100
C232 0.001 B:CHIP
R212 1k :CHIP
Q202 2SC2412K
R255 180k 1/8W :CHIP
R253 10k :CHIP
R254 180k 1/8W :CHIP
R215 10k :CHIP
C233 0.001 B:CHIP
Q201 2SC2412K
R252 10k :CHIP
C280 10 BP
D206 DAN202K
R251 2.2k :CHIP
D213 DAN202K
JW113
R071 470
-22V
CN0110 7P WHT :S-MICRO
+22V
GND
GND
-22V
P OFF
STAND BY
GND
TO G BOARD CN0905
VAR L
GND
VAR R
GND
SP L OUT
GND
SP R OUT
TO J BOARD CN1210
CN0107 4P RED :S-MICRO
SDA
SCL
GND
V BLK
CN0150 6P WHT :S-MICRO
IK
V SYNC100
SDA
SCL
WIDE
ZOOM
TO D6 BOARD CN2050
GND
ABL
GND
N/S
PROT
VP/100
CS/100
VTM-P/100
HP/100
H/50
VP 100S
CN0146 11P YEW :S-MICRO
TO D BOARD CN0546
CN0119 5P YEW :S-MICRO
GND
VM-OUT
12V
VM-MUTE
135V
TO VM BOARD CN1819

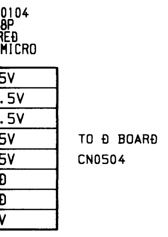

15
16
17
18
19
20
21
22
A
(VIF, SIF, AF OUT)
(R.G.B DECORDER)
IC681 SI3120CA 12V-REG
IC682 SI3050CA 5V-REG
IC684 MC7809CT
IC685 TEA7605
IC072 ST24C16CB1
Q681 2SD774
Q682 2SC2412K
Q683 2SA1037K
Q071 DTC124EK
CN0104 8P RED :S-MICRO
135V
15.5V
15.5V
7.5V
7.5V
GND
GND
12V
TO D BOARD CN0504
KV-S2941B only
12V
GND
VIDEO
SSCP
ID
CN0106 5P BLK :S-MICRO
TO E2 BOARD CN2
IC1354 LM393P
Q1351 2SC2412K
Q1358 2SA1037K
IC1351 TDA4780
IC1352 MC74HC4053N
Q1360 2SA1037K
R OUT
G OUT
B OUT
GND
12V
IK
GND
STBY 5V
GND
GND
CN0103 10P RED :S-MICRO
TO C BOARD CN0403
IC1353 BA4558
Q1361 2SA1037K
Q1362 DTC114EK
Q1363 2SC2412K
CN0119 5P YEW :S-MICRO
GND
VM-OUT
12V
VM-MUTE
135V
TO VM BOARD CN1819
B-SS4873<AEP>-A..

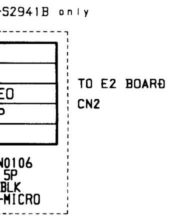
— A Board —

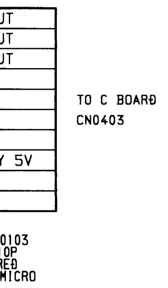
Ref. No.	Name	Function	Ref. No.	
IC072	ST24C16CB1	16K EPROM	D068	DA
IC251	TDA2052	AF AMP L	D069	DA
IC261	TDA2052	AF AMP R	D071	MIJ
IC270	TDA2052	AUDIO AMP F SUB WOOFER	D073	MIJ
IC681	SI3120CA	12V REG	D075	DA
IC682	SI3050CA	5V REG	D077	DA
IC684	MC7809CT	9V REG	D078	MT
IC685	TEA7605	STDBY 5V REG	D079	MT
IC1351	TDA4780	RGB DECODER	D101	MT
IC1352	MC74HC4053N	DELAY LINE	D206	DA
IC1353	BA4558	V PULSE AMP	D207	1S
IC1354	LM393P	H PULSE AMP	D208	1S
			D209	1S
Q071	DTC124EK	STANDBY SWITCH	D210	1S
Q101	2SA1037K	AGC	D211	1S
Q102	DTC124EK	INVERTER	D212	1S
Q103	DTC124EK	AUTO RESET	D213	DA
Q106	2SC2412K	VIDEO BUFFER	D215	DA
Q107	2SC2412K	VIDEO AMP	D216	DA
Q108	2SA1037K	VIDEO CLAMP	D261	1S
Q201	2SC2412K	MUTE SWITCH	D262	1S
Q202	2SC2412K	MUTE SWITCH	D270	MT
Q203	2SC2412K	H PULSE AMP	D681	DA
Q204	2SA1037K	STANDBY SWITCH	D682	MT
Q205	2SA1037K	MUTE SWITCH	D683	MT
Q206	2SA1037K	MUTE SWITCH	D1351	1S
Q207	2SC2412K	AFT BUFFER	D1352	DA
Q209	2SA1037K	MUTE SWITCH	D1353	DA
Q210	2SC2412K	SWITCH	D1354	DA
Q270	2SC2412K	AUDIO MIX	D1355	DA
Q681	2SD774	REG SWITCH	D1356	DA
Q682	2SC2412K	REG SWITCH	D1357	DA
Q683	2SA1037K	REG SWITCH	D1358	DA
Q1351	2SC2412K	H PULSE BUFFER	D1359	DA
Q1358	2SA1037K	VM MUTE		
Q1359	2SC2412K	VM OUT		
Q1360	2SA1037K	Y BUFFER		
Q1361	2SA1037K	IK BUFFER		
Q1362	DTC114EK	IK SWITCH		
Q1363	2SC2412K	IK AMP		

— A Board —




0104
8P
RED
MICRO
5V
.5V
.5V
5V
5V
D
D
V
TO D BOARD
CN0504

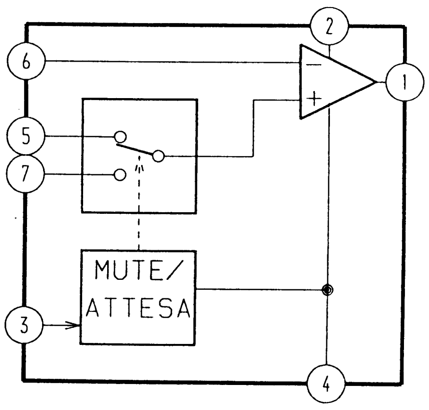

S2941B only
EO
5
TO E2 BOARD
CN2
N0106
5P
BLK
-MICRO


UT
UT
UT
Y 5V
TO C BOARD
CN0403
0103
10P
RED
MICRO

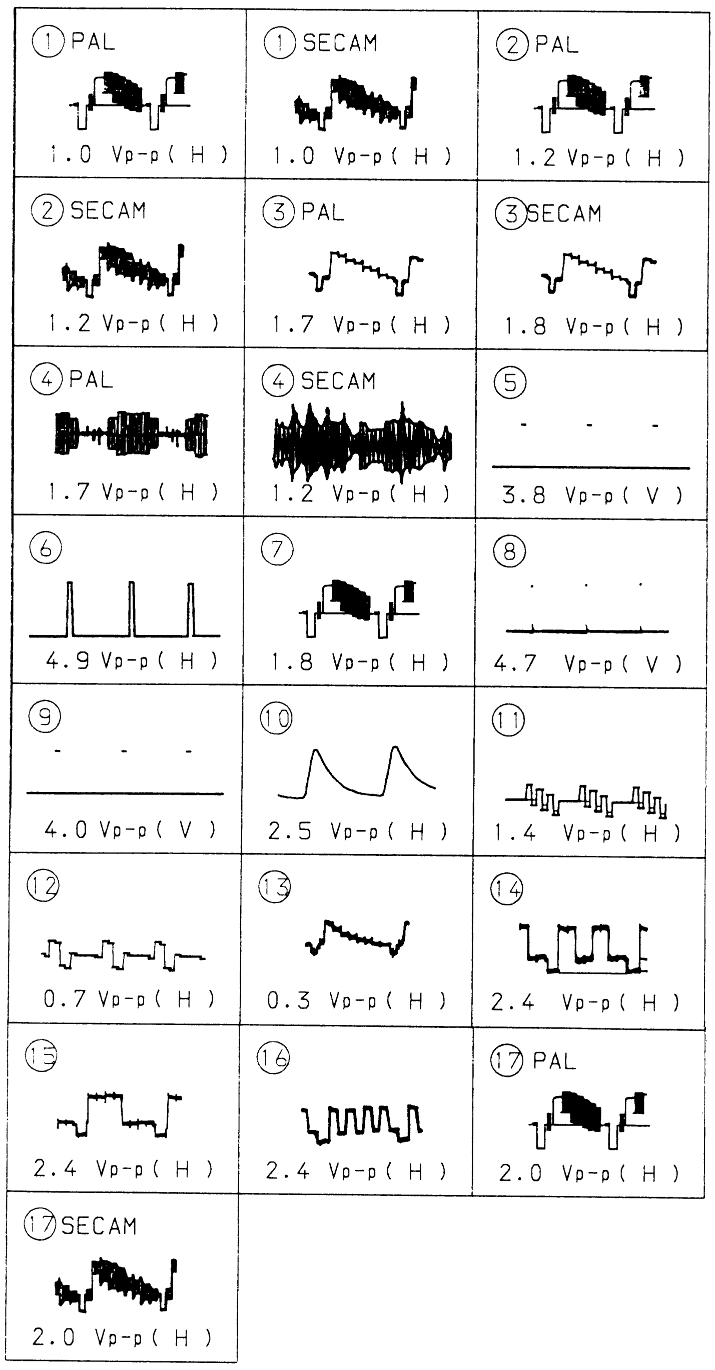
— A Board —

Ref. No.	Name	Function	Ref. No.	Name	Function
IC072	ST24C16CB1	16K EPROM	D068	DAP202K	PROTECTOR
IC251	TDA2052	AF AMP L	D069	DAP202K	PROTECTOR
IC261	TDA2052	AF AMP R	D071	MIJZ-T-77-5,6B	PROTECTOR
IC270	TDA2052	AUDIO AMP F SUB WOOFER	D073	MIJZ-T-77-5,6B	PROTECTOR
IC681	SI3120CA	12V REG	D075	DAN202K	PROTECTOR
IC682	SI3050CA	5V REG	D077	DAN202K	PROTECTOR
IC684	MC7809CT	9V REG	D078	MTJZ-T-77-5,6B	PROTECTOR
IC685	TEA7605	STDBY 5V REG	D079	MTJZ-T-77-5,6B	PROTECTOR
IC1351	TDA4780	RGB DECODER	D101	MTZJ-T-77-33C	+33V REG
IC1352	MC74HC4053N	DELAY LINE	D206	DAN202K	MUTE
IC1353	BA4558	V PULSE AMP	D207	1SS133T	SWITCH
IC1354	LM393P	H PULSE AMP	D208	1SS133T	SWITCH
			D209	1SS133T	PROTECT
Q071	DTC124EK	STANDBY SWITCH	D210	1SS133T	PROTECT
Q101	2SA1037K	AGC	D211	1SS133T	PROTECT
Q102	DTC124EK	INVERTER	D212	1SS133T	PROTECT
Q103	DTC124EK	AUTO RESET	D213	DAN202K	PROTECT
Q106	2SC2412K	VIDEO BUFFER	D215	DA204K	PROTECT
Q107	2SC2412K	VIDEO AMP	D216	DA204K	PROTECT
Q108	2SA1037K	VIDEO CLAMP	D261	1SS133T	PROTECT
Q201	2SC2412K	MUTE SWITCH	D262	1SS133T	PROTECT
Q202	2SC2412K	MUTE SWITCH	D270	MTZJ-T-77-9,1	PROTECT
Q203	2SC2412K	H PULSE AMP	D681	DAP202K	PROTECT
Q204	2SA1037K	STANDBY SWITCH	D682	MTZJ-T-77-7,5A	5V REG REF
Q205	2SA1037K	MUTE SWITCH	D683	MTZJ-J-77-5,6B	REF
Q206	2SA1037K	MUTE SWITCH	D1351	1SS133T	8V REG REF
Q207	2SC2412K	AFT BUFFER	D1352	DAN202K	LIMITTER
Q209	2SA1037K	MUTE SWITCH	D1353	DAN202K	RECT
Q210	2SC2412K	SWITCH	D1354	DAN202K	PROTECT
Q270	2SC2412K	AUDIO MIX	D1355	DAN202K	SWITCH
Q681	2SD774	REG SWITCH	D1356	DAN202K	LIMITTER
Q682	2SC2412K	REG SWITCH	D1357	DAN202K	LIMITTER
Q683	2SA1037K	REG SWITCH	D1358	DAN202K	LIMITTER
Q1351	2SC2412K	H PULSE BUFFER	D1359	DAN202K	SWITCH
Q1358	2SA1037K	VM MUTE			
Q1359	2SC2412K	VM OUT			
Q1360	2SA1037K	Y BUFFER			
Q1361	2SA1037K	IK BUFFER			
Q1362	DTC114EK	IK SWITCH			
Q1363	2SC2412K	IK AMP			

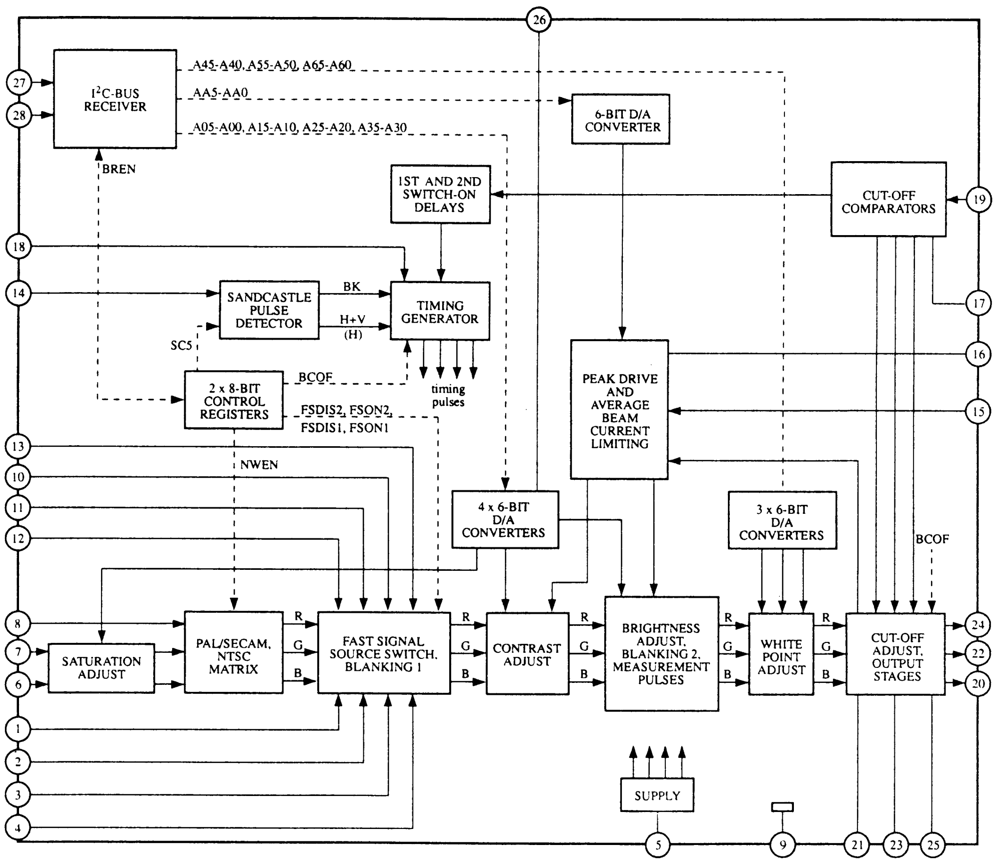
A BOARD IC251,261,270 TDA2052


2
6
1
5
7
MUTE/
ATTESA
3
4

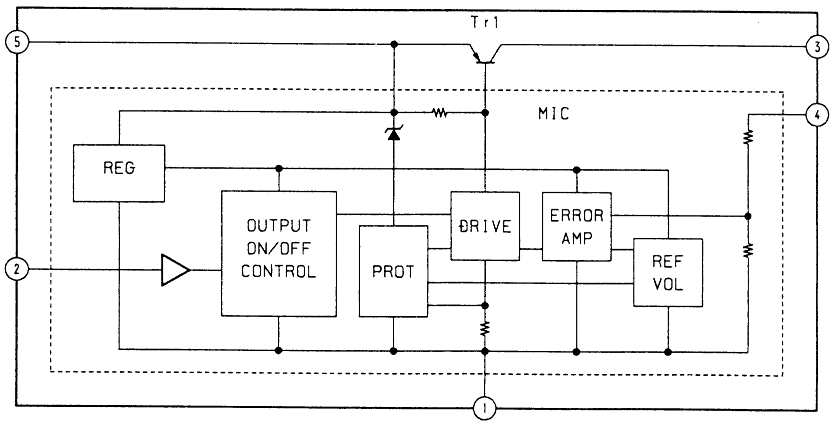
— A Board —



A BOARD IC1351 TDA4780


26
27
28
I²C-BUS RECEIVER
A45-A40, A55-A50, A65-A60
AA5-AA0
A05-A00, A15-A10, A25-A20, A35-A30
6-BIT D/A CONVERTER
BREN
1ST AND 2ND SWITCH-ON DELAYS
CUT-OFF COMPARATORS
19
18
14
SANDCASTLE PULSE DETECTOR
BK
H+V
(H)
TIMING GENERATOR
17
SC5
16
2 x 8-BIT CONTROL REGISTERS
BCOF
timing pulses
PEAK DRIVE AND AVERAGE BEAM CURRENT LIMITING
FSDIS2, FSON2,
FSDIS1, FSON1
15
13
NWEN
10
11
4 x 6-BIT D/A CONVERTERS
3 x 6-BIT D/A CONVERTERS
12
BCOF
8
7
6
SATURATION ADJUST
PAL/SECAM, NTSC MATRIX
R
G
B
FAST SIGNAL SOURCE SWITCH, BLANKING 1
CONTRAST ADJUST
BRIGHTNESS ADJUST, BLANKING 2, MEASUREMENT PULSES
WHITE POINT ADJUST
CUT-OFF ADJUST, OUTPUT STAGES
24
22
20
1
2
3
4
SUPPLY
5
9
21
23
25

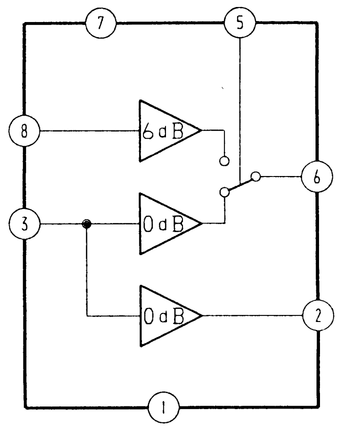
A BOARD IC681 SI3120CA


Tr1
5
3
4
MIC
REG
OUTPUT ON/OFF CONTROL
DRIVE
ERROR AMP
2
PROT
REF VOL
1

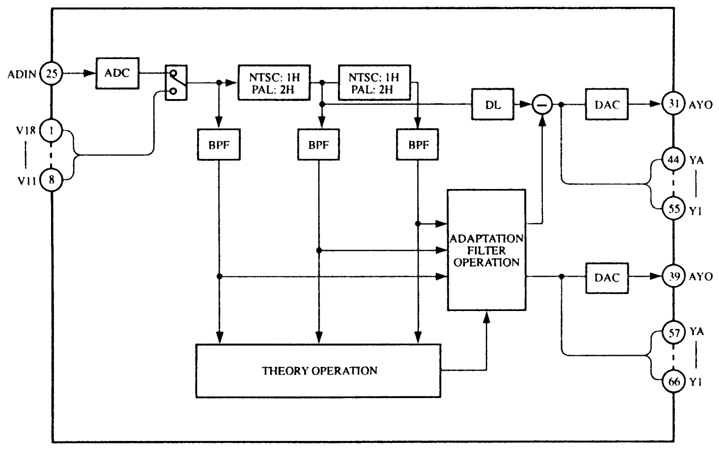
Schematic diagram
← A board

Schematic diagram
J board →

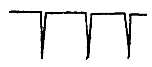
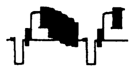
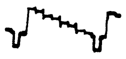
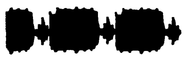
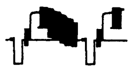
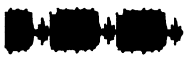
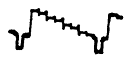
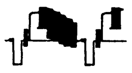
J BOARD IC402 TEA2114


7
5
8
6 d B
6
3
0 d B
0 d B
2
1

J BOARD IC1301 CXD2024Q-TL

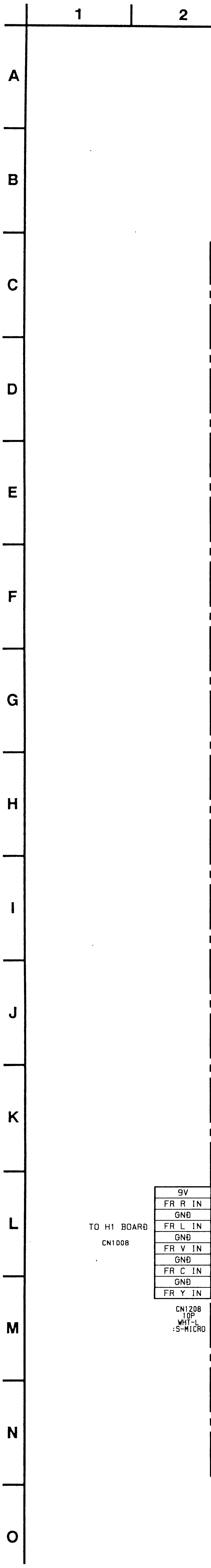

ADIN
25
ADC
NTSC: 1H
PAL: 2H
NTSC: 1H
PAL: 2H
DL
DAC
31
AYO
V18
1
V11
8
BPF
BPF
BPF
44
YA
55
Y1
ADAPTATION
FILTER
OPERATION
DAC
39
AYO
57
YA
66
Y1
THEORY OPERATION

— J Board —

①  4.2 Vp-p (H)	②  0.8 Vp-p (H)	③  1.1 Vp-p (H)
④  0.75 Vp-p (H)	⑤  1.2 Vp-p (H)	⑥  1.5 Vp-p (H)
⑦  2 Vp-p (H)	⑧  2 Vp-p (H)	

— J Board —

Ref. No.	Name	Function
IC401	CXA1545AS	A/V SWITCH
IC402	TEA2114	BUFFER
IC1301	CXD2024Q-TL	DIGITAL COMB
Q401	2SC2412K	CHROMA BUFFER
Q402	2SC2412K	Y BUFFER
Q403	2SC2412K	VIDEO BUFFER
Q404	2SC2412K	VIDEO BUFFER
Q1301	2SA1037K	FREQUENCY DOUBLER
Q1302	2SA1037K	FREQUENCY DOUBLER
Q1303	2SA1037K	FREQUENCY DOUBLER
Q1304	2SC2412K	PULSE FORMER
Q1305	2SC2412K	VIDEO BUFFER
Q1306	2SC2412K	VIDEO BUFFER
Q1307	2SA1037K	Y AMP
Q1308	2SA1037K	Y BUFFER
Q1309	2SC2412K	CHROMA AMP
Q1311	2SC2412K	CHROMA BUFFER
Q1312	2SA1037K	CLAMP
Q1313	2SC2412K	Y AMP
Q1314	2SA1037K	Y BUFFER
Q1315	2SA1037K	Y BUFFER
D401	MTZJ-9.1	PROTECTOR
D403	MTZJ-9.1	PROTECTOR
D405	MTZJ-9.1	PROTECTOR
D406	MTZJ-9.1	PROTECTOR
D407	MTZJ-9.1	PROTECTOR
D901	MTZJ-9.1	PROTECTOR
D902	MTZJ-9.1	PROTECTOR
D903	MTZJ-9.1	PROTECTOR
D904	MTZJ-9.1	PROTECTOR
D905	MTZJ-9.1	PROTECTOR
D906	MTZJ-9.1	PROTECTOR
D907	MTZJ-9.1	PROTECTOR
D908	MTZJ-9.1	PROTECTOR
D909	MTZJ-9.1	PROTECTOR
D910	MTZJ-9.1	PROTECTOR
D911	MTZJ-9.1	PROTECTOR
D913	MTZJ-9.1	PROTECTOR
D914	MTZJ-9.1	PROTECTOR
D915	MTZJ-9.1	PROTECTOR
D916	MTZJ-9.1	PROTECTOR
D917	MTZJ-9.1	PROTECTOR
D919	MTZJ-9.1	PROTECTOR
D920	MTZJ-9.1	PROTECTOR
D921	MTZJ-9.1	PROTECTOR
D922	MTZJ-9.1	PROTECTOR
D923	MTZJ-9.1	PROTECTOR
D924	MTZJ-9.1	PROTECTOR
D925	MTZJ-9.1	PROTECTOR
D926	MTZJ-9.1	PROTECTOR
D927	MTZJ-9.1	PROTECTOR
D928	MTZJ-9.1	PROTECTOR
D930	MTZJ-9.1	PROTECTOR
D931	MTZJ-9.1	PROTECTOR
D932	MTZJ-9.1	PROTECTOR
D1301	DAN202K	PROTECTOR


1
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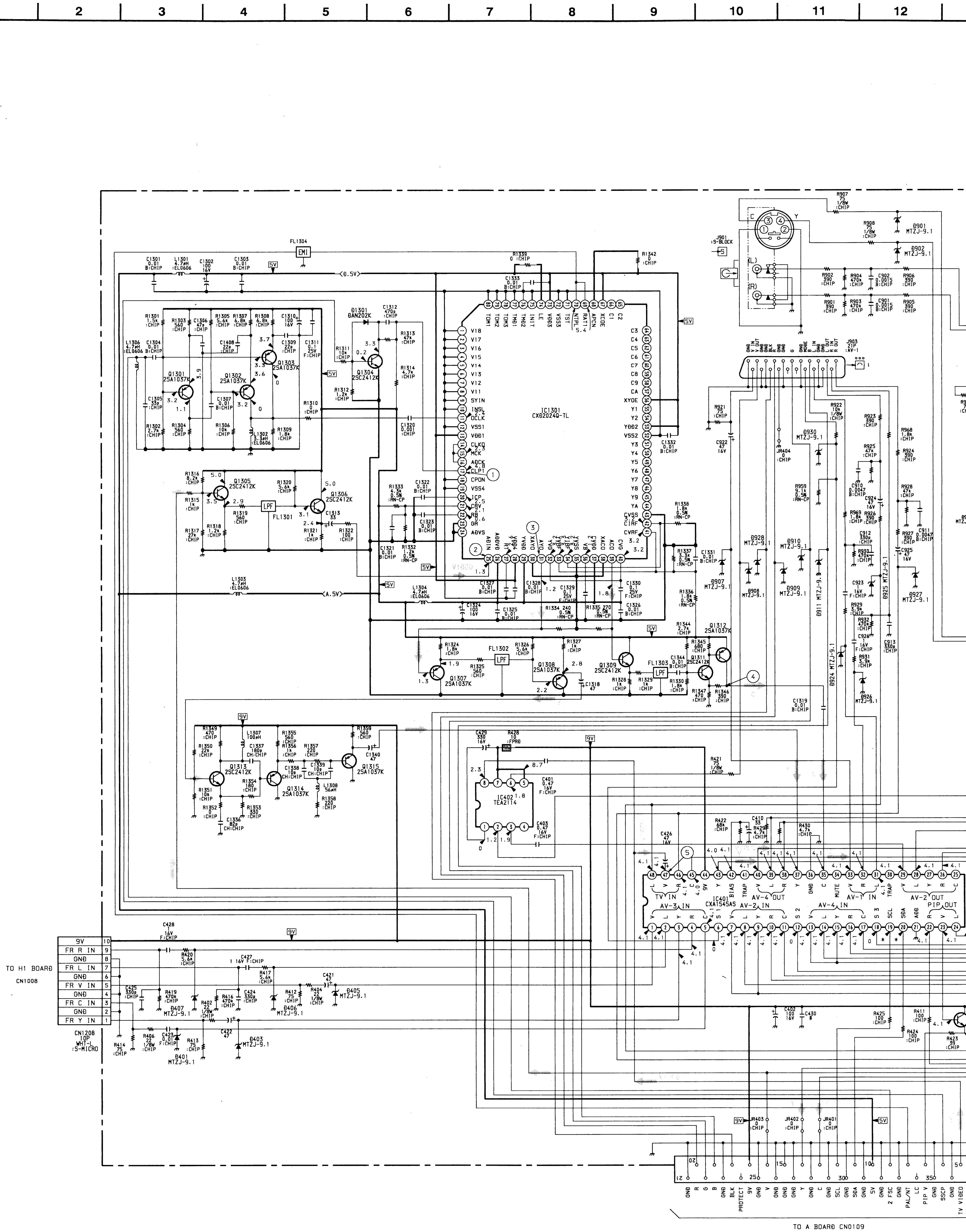
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
TO H1 BOARD
CN1008
9V
FR R IN
GND
FR L IN
GND
FR V IN
GND
FR C IN
GND
FR Y IN
CN1208
10P
WHT-L
:S-MICRO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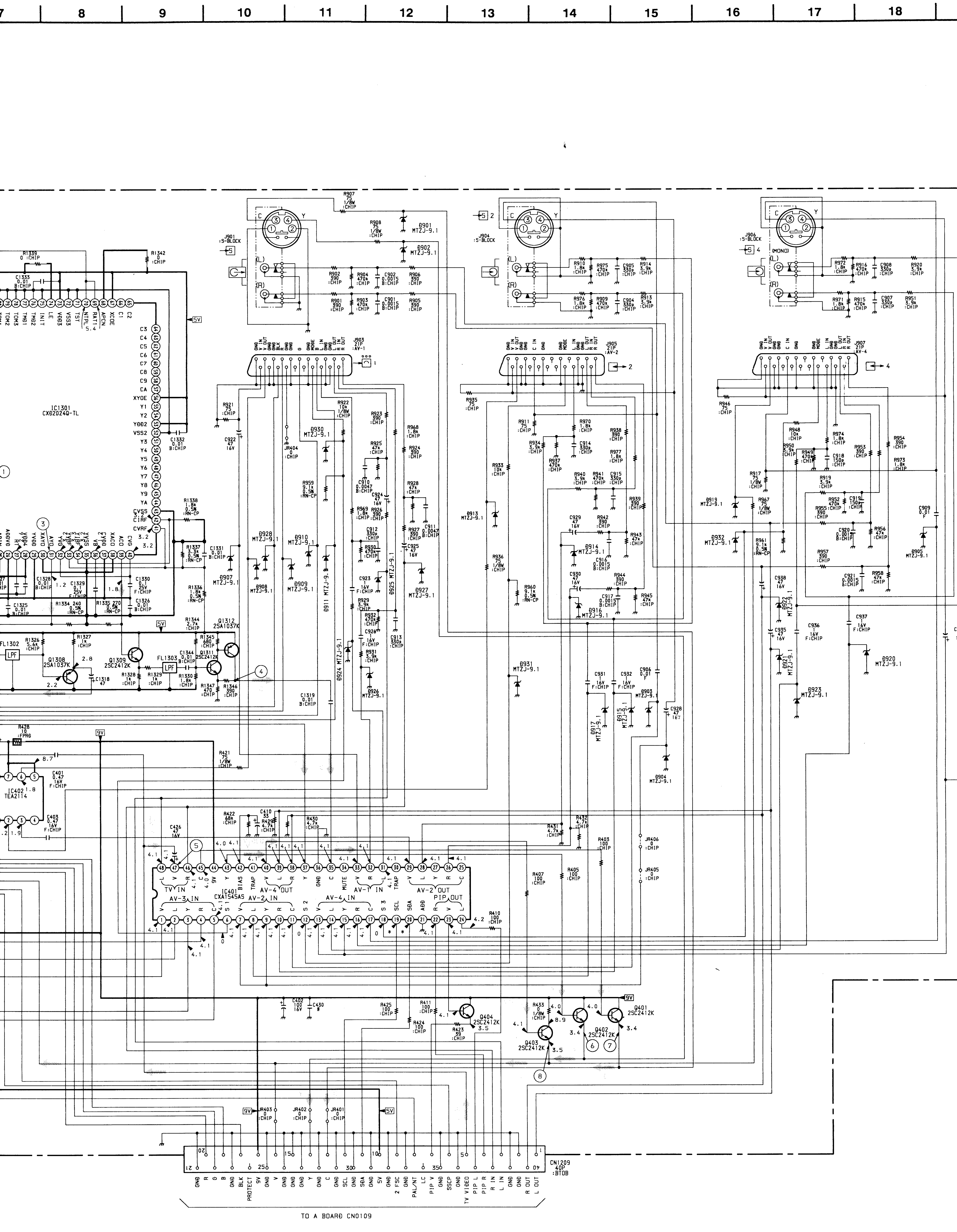
11
12
FL1304
EMI
C1301 0.01 B:CHIP
L1301 4.7μH :EL0606
C1302 100 16V
C1303 0.01 B:CHIP
5V
(8.5V)
R1339 0 :CHIP
R1342 0 :CHIP
C1333 0.01 B:CHIP
R1301 1.5k :CHIP
R1303 560 :CHIP
C1306 47p :CHIP
R1305 5.6k :CHIP
R1307 6.8k :CHIP
R1308 6.8k :CHIP
C1310 100 16V
D1301 DAN202K
C1312 470p :CHIP
L1306 4.7μH :EL0606
C1304 0.01 B:CHIP
C1408 22p :CHIP
C1309 22p :CHIP
C1311 0.1 25V F:CHIP
R1311 10k :CHIP
R1313 47k :CHIP
Q1301 2SA1037K
Q1302 2SA1037K
Q1303 2SA1037K
Q1304 2SC2412K
R1314 4.7k :CHIP
C1305 33p :CHIP
C1307 0.01 B:CHIP
R1312 1.2k :CHIP
R1310 0 :CHIP
R1302 2.7k :CHIP
R1304 560 :CHIP
R1306 10k :CHIP
L1302 3.3μH :EL0606
R1309 1.8k :CHIP
C1320 0.001 :CHIP
IC1301 CX20024Q-TL
V18
V17
V16
V15
V14
V13
V12
V11
SYIN
INSL
VDD1
VSS1
CLKO
MCK
ADCK
CLP1
CPON
VSS4
ICP
CBV
RB
GR
ADVS
TOM1
TOM2
TOM3
TMO1
TMO2
INIT
LE
VDD3
VSS3
TST
NTPL
RATI
APCN
XCOE
C1
C2
C3
C4
C5
C6
C7
C8
CA
C9
XYOE
Y1
Y2
YDD2
VSS2
Y3
Y4
Y5
Y6
Y7
Y8
Y9
YA
CVSS
CIRF
CVRF
ADVB
ADIN
VDD4
XAYO
AYO
YVG
VDD5
XACO
ACO
CVG
R1316 8.2k :CHIP
Q1305 2SC2412K
R1320 5.6k :CHIP
Q1306 2SC2412K
R1315 1k :CHIP
R1319 560 :CHIP
LPF
FL1301
C1313 33
R1333 4.3k 0.5% :RN-CP
C1322 0.01 B:CHIP
R1317 27k :CHIP
R1318 1.2k :CHIP
R1321 1k :CHIP
R1322 100 :CHIP
C1323 0.01 B:CHIP
C1321 0.01 B:CHIP
R1332 1.2k 0.5% :RN-CP
R1338 1.8k 0.5% :RN-CP
R1337 3.3k 0.5% :RN-CP
C1331 0.01 B:CHIP
C1332 0.01 B:CHIP
L1303 4.7μH :EL0606
(A.5V)
L1304 4.7μH :EL0606
C1327 0.01 B:CHIP
C1328 0.01 B:CHIP
C1329 0.1 25V F:CHIP
C1330 0.1 25V F:CHIP
C1324 100 16V
C1325 0.01 B:CHIP
R1334 240 0.5% :RN-CP
R1335 270 0.5% :RN-CP
C1326 0.01 B:CHIP
R1336 1.8k 0.5% :RN-CP
R1344 2.7k :CHIP
Q1312 2SA1037K
R1324 1.8k :CHIP
FL1302
R1326 5.6k :CHIP
R1327 1k :CHIP
R1345 680 :CHIP
R1325 560 :CHIP
Q1308 2SA1037K
Q1309 2SC2412K
FL1303
C1344 0.01 B:CHIP
Q1311 2SC2412K
Q1307 2SA1037K
C1318 47
R1328 1k :CHIP
R1329 1k :CHIP
R1330 1.8k :CHIP
R1347 470 :CHIP
R1346 390 :CHIP
C1319 0.01 B:CHIP
9V
R1349 470 :CHIP
L1307 100μH
R1355 560 :CHIP
R1359 560 :CHIP
R1350 22k :CHIP
C1337 180p CH:CHIP
R1356 1k :CHIP
R1357 220 :CHIP
C1340 47
Q1313 2SC2412K
C1338 10p CH:CHIP
C1339 10p CH:CHIP
Q1315 2SA1037K
R1354 180 :CHIP
Q1314 2SA1037K
L1308 56μH
R1351 10k :CHIP
R1358 220 :CHIP
R1352 0 :CHIP
R1353 330 :CHIP
C1336 82p CH:CHIP
C429 330 16V
R428 10 :FPRO
IC402 TEA2114
C401 0.47 16V F:CHIP
C403 0.47 16V F:CHIP
R907 75 1/8W :CHIP
J901 :S-BLOCK
R908 75 1/8W :CHIP
D901 MTZJ-9.1
D902 MTZJ-9.1
R902 390 :CHIP
R904 470k :CHIP
C902 0.0015 B:CHIP
R906 390 :CHIP
R901 390 :CHIP
R903 470k :CHIP
C901 0.0015 B:CHIP
R905 390 :CHIP
J903 21P AV-1
R921 75 :CHIP
C922 47 16V
R922 10k 1/8W :CHIP
D930 MTZJ-9.1
R923 390 :CHIP
R968 1.8k :CHIP
JR404 0 :CHIP
R925 47k :CHIP
R924 390 :CHIP
R959 9.1k 0.5% :RN-CP
C910 0.0047 B:CHIP
C924 47 16V
R928 47k :CHIP
R969 1.8k :CHIP
R926 390 :CHIP
D928 MTZJ-9.1
D910 MTZJ-9.1
C912 330p :CHIP
R927 390 :CHIP
C911 0.0047 B:CHIP
R930 470k :CHIP
C925 47 16V
D907 MTZJ-9.1
D908 MTZJ-9.1
D909 MTZJ-9.1
D911 MTZJ-9.1
D925 MTZJ-9.1
D927 MTZJ-9.1
C923 16V F:CHIP
R929 3.9k :CHIP
R932 470k :CHIP
C926 16V F:CHIP
C913 330p :CHIP
R931 3.9k :CHIP
D924 MTZJ-9.1
D926 MTZJ-9.1
R421 75 1/8W :CHIP
R422 68k :CHIP
C410 33
R429 4.7k :CHIP
R430 4.7k :CHIP
C426 47 16V
IC401 CXA1545AS
TV IN
AV-4 OUT
AV-1 IN
AV-2 OUT
AV-3 IN
AV-2 IN
AV-4 IN
PIP OUT
BIAS
TRAP
MUTE
SCL
SDA
ADD
9V
FR R IN
GND
FR L IN
FR V IN
FR C IN
FR Y IN
TO H1 BOARD CN1008
CN1208 10P WHT-L :S-MICRO
C428 16V F:CHIP
R420 5.6k :CHIP
C427 1 16V F:CHIP
R417 5.6k :CHIP
C421 47
C425 330p :CHIP
R419 470k :CHIP
D407 MTZJ-9.1
R402 22 1/8W :CHIP
R416 470k :CHIP
C424 330p :CHIP
R412 75 :CHIP
R404 22 1/8W :CHIP
D405 MTZJ-9.1
D406 MTZJ-9.1
R414 75 :CHIP
R406 22 1/8W :CHIP
C423 0.01 F:CHIP
R413 75 :CHIP
D401 MTZJ-9.1
C422 47
D403 MTZJ-9.1
C402 100 16V
C430
R425 100 :CHIP
R411 100 :CHIP
R424 10k :CHIP
R423 39 :CHIP
JR403 0 :CHIP
JR402 0 :CHIP
JR401 0 :CHIP
GND
R
G
B
BLK
PROTECT
V
Y
C
SCL
SDA
5V
2 FSC
PAL/NT
LC
PIP V
SSCP
TV VIDEO
TO A BOARD CN0109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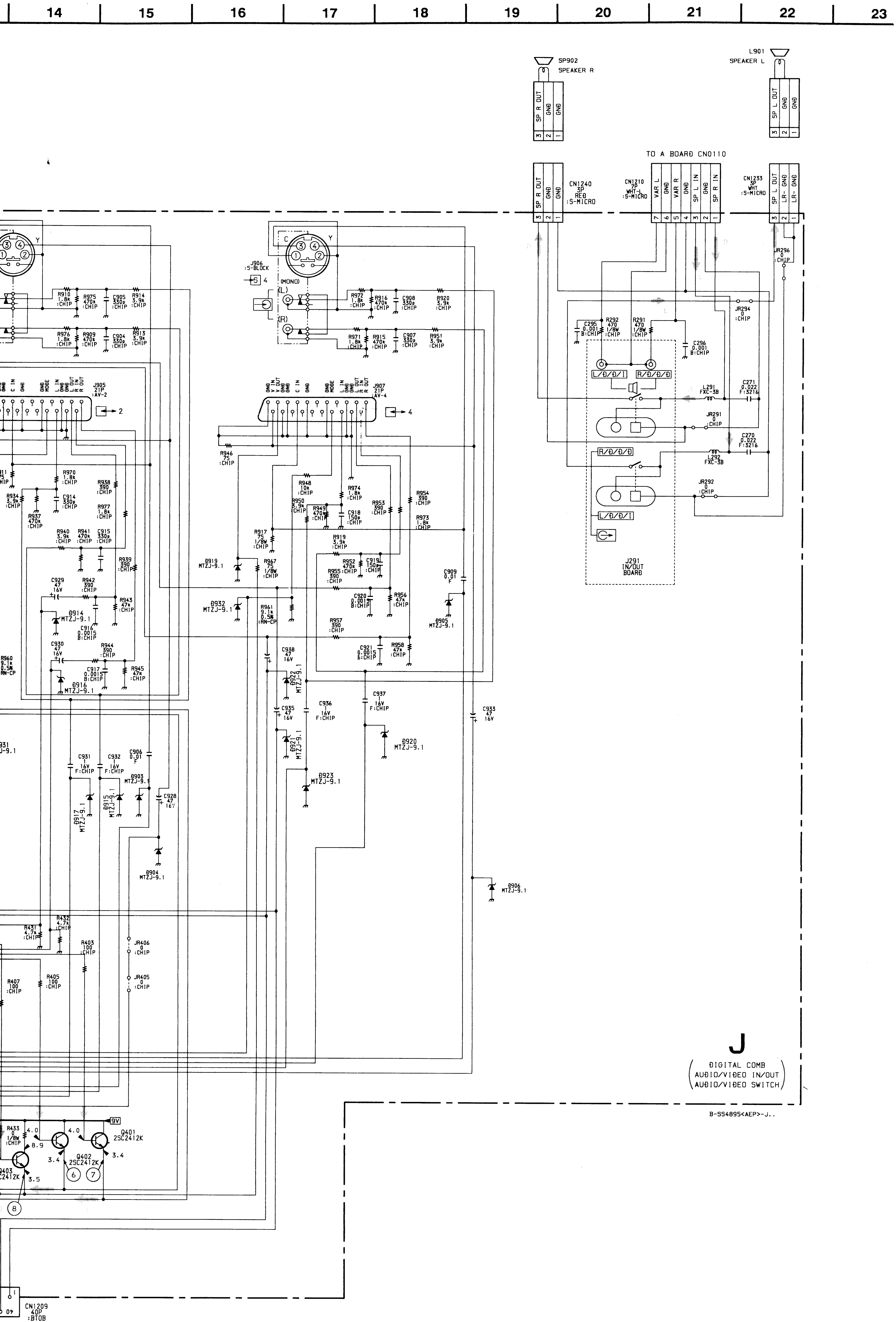
16
17
18
IC1301 CX02024Q-TL
IC401 CXA1545AS
IC402 TEA2114
J901 :S-BLOCK
J903 21P :AV-1
J904 :S-BLOCK
J905 21P :AV-2
J906 :S-BLOCK
J907 21P :AV-4
(MONO)
Q1308 2SA1037K
Q1309 2SC2412K
Q1311 2SC2412K
Q1312 2SA1037K
FL1302 LPF
FL1303 LPF
Q401 2SC2412K
Q402 2SC2412K
Q403 2SC2412K
Q404 2SC2412K
9V
5V
TV IN
AV-3 IN
AV-2 IN
AV-4 OUT
AV-4 IN
AV-1 IN
AV-2 OUT
PIP OUT
BIAS
TRAP
MUTE
SCL
SDA
ADD
CN1209 40P :BTOB
GND R G B GND BLK PROTECT 9V GND V GND GND Y GND C GND SCL GND SDA GND 5V 2 FSC GND PAL/NT LC PIP V GND SSCP GND TV VIDEO PIP L PIP R L IN R IN GND GND R OUT L OUT
TO A BOARD CN0109



14
15
16
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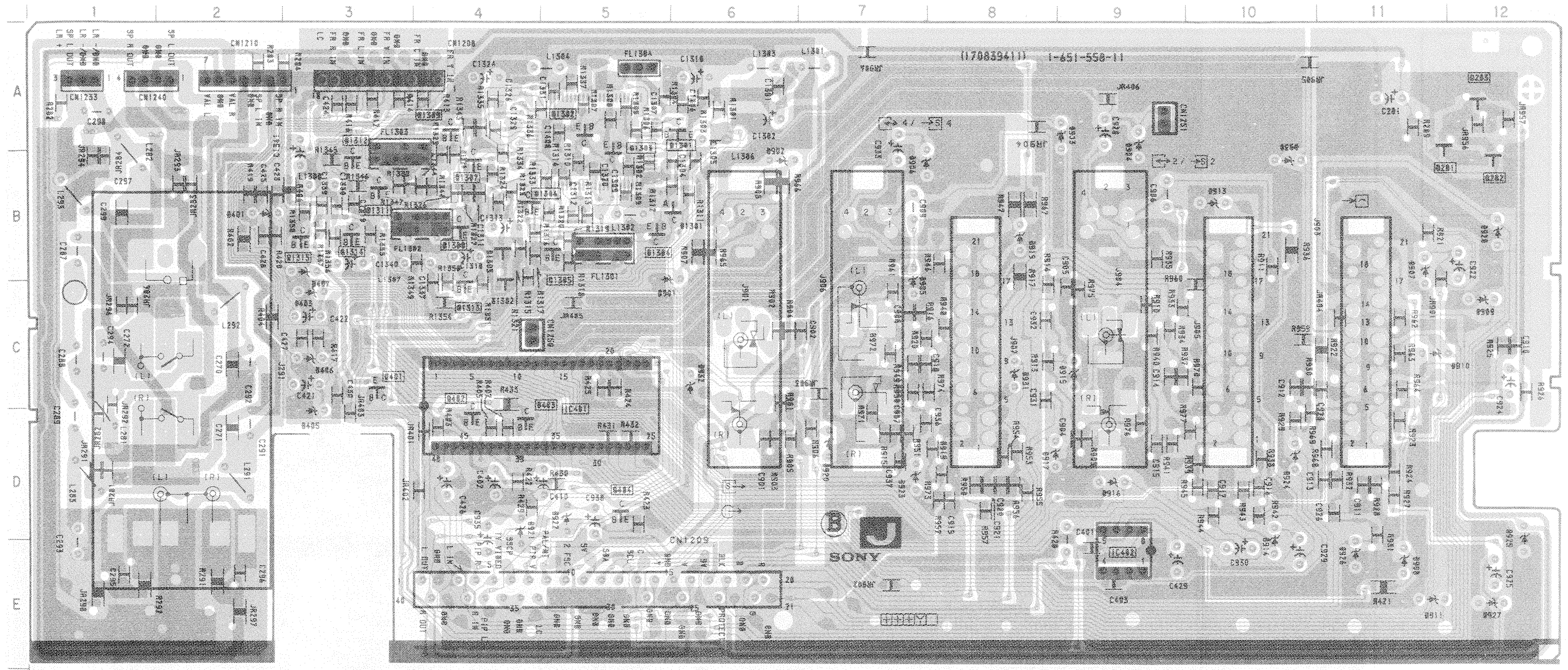
21
22
23
SP902
SPEAKER R
L901
SPEAKER L
SP R OUT
GND
GND
SP L OUT
TO A BOARD CN0110
CN1240
3P
RED
:S-MICRO
CN1210
7P
WHT-L
:S-MICRO
VAR L
GND
VAR R
GND
SP L IN
GND
SP R IN
CN1233
3P
WHT
:S-MICRO
LR-GND
J906
:S-BLOCK
(MONO)
(L)
(R)
J905
21P
:AV-2
J907
21P
:AV-4
R292
470
1/8W
:CHIP
R291
470
1/8W
:CHIP
C295
0.001
B:CHIP
C296
0.001
B:CHIP
JR294
0
:CHIP
JR296
0
:CHIP
L/D/D/I
R/D/D/D
L291
FXC-3B
L292
FXC-3B
C271
0.022
F:3216
C270
0.022
F:3216
JR291
0
:CHIP
JR292
0
:CHIP
J291
IN/OUT
BOARD
D919
MTZJ-9.1
D932
MTZJ-9.1
D905
MTZJ-9.1
D914
MTZJ-9.1
D916
MTZJ-9.1
D922
MTZJ-9.1
D921
MTZJ-9.1
D923
MTZJ-9.1
D920
MTZJ-9.1
D917
MTZJ-9.1
D915
MTZJ-9.1
D903
MTZJ-9.1
D904
MTZJ-9.1
D906
MTZJ-9.1
C909
0.01
F
C933
47
16V
C938
47
16V
C935
47
16V
C936
1
16V
F:CHIP
C937
1
16V
F:CHIP
C931
1
16V
F:CHIP
C932
1
16V
F:CHIP
C906
0.01
F
C928
47
16V
R961
9.1k
0.5%
:RN-CP
R946
75
:CHIP
R917
75
1/8W
:CHIP
R967
75
1/8W
:CHIP
R431
4.7k
:CHIP
R432
4.7k
:CHIP
R403
100
:CHIP
R407
100
:CHIP
R405
100
:CHIP
JR406
0
:CHIP
JR405
0
:CHIP
R433
0
1/8W
:CHIP
Q401
2SC2412K
Q402
2SC2412K
Q403
2SC2412K
9V
4.0
8.9
3.4
3.5
6
7
8
CN1209
40P
:BTOB
J
DIGITAL COMB
AUDIO/VIDEO IN/OUT
AUDIO/VIDEO SWITCH
B-SS4895<AEP>-J..

J [AUDIO/VIDEO SWITCH, DIGITAL COMB, BUFFER]

— J Board — <Conductor Side>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A
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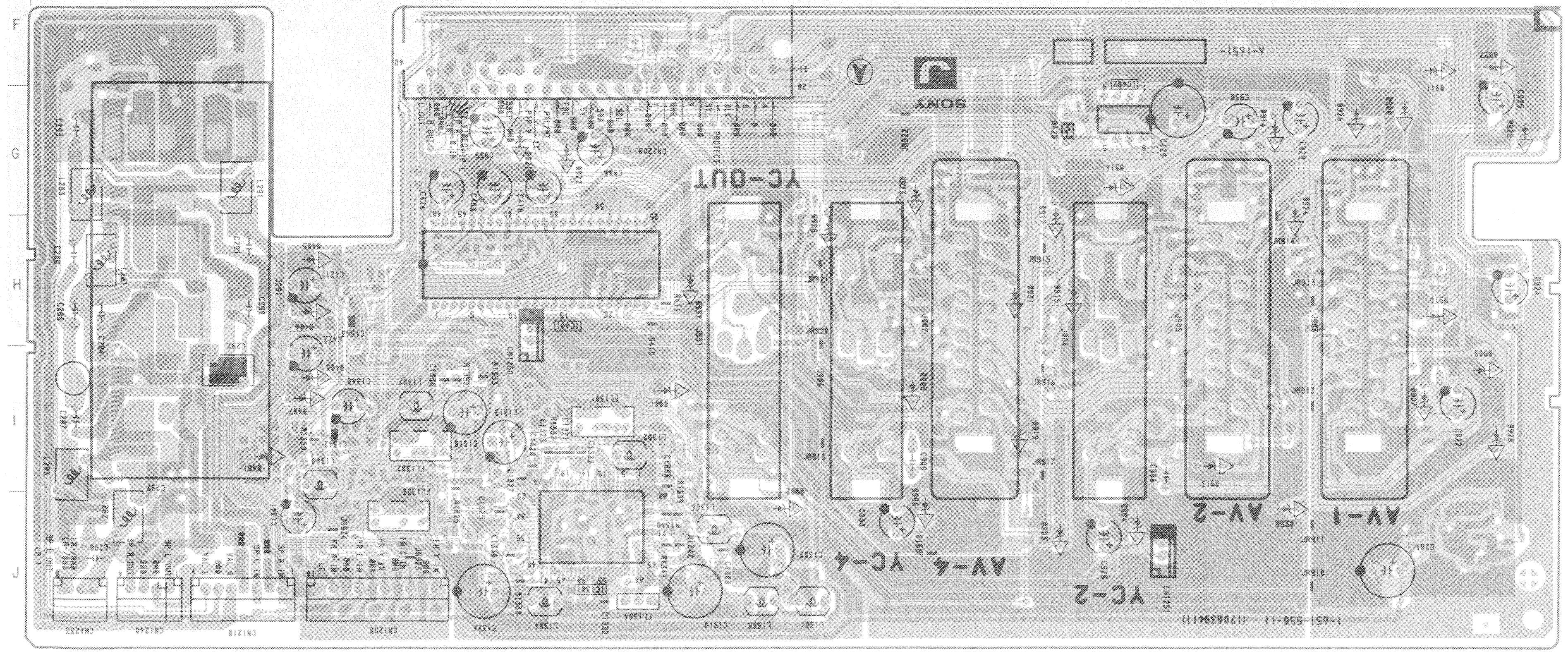
C
D
E
1-651-558-11
SONY
J

— J Board — <Component Side>

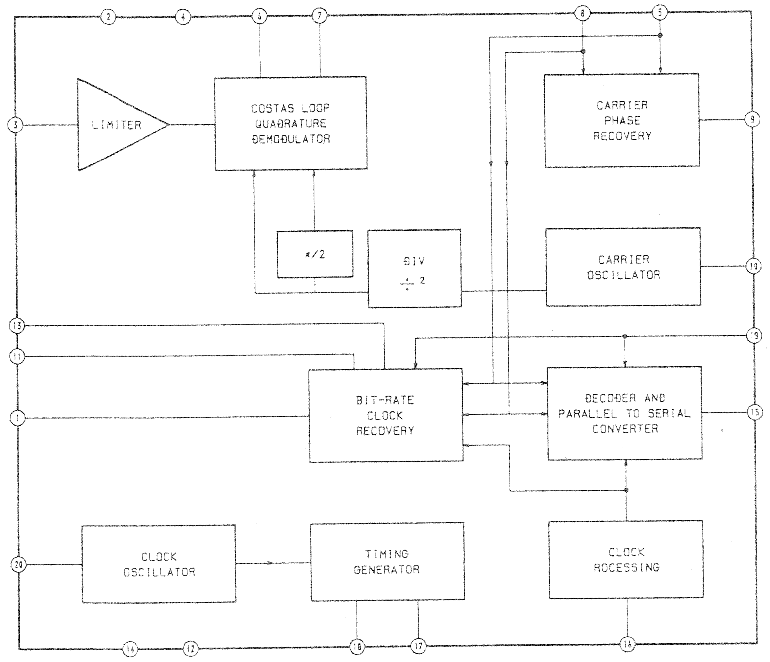

F
G
H
I
J
SONY
YC-OUT
YC-4
AV-4
YC-2
AV-2
AV-1
1-651-558-11

— J Board —

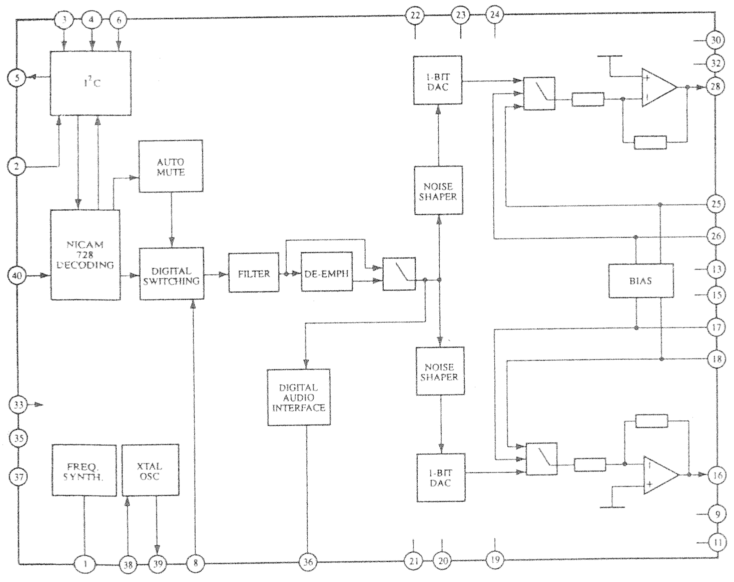
IC	
IC401	D-5
IC402	E-9
IC1301	J-5
TRANSISTOR	
Q401	C-3
Q402	D-3
Q403	D-4
Q404	D-5
Q1301	A-6
Q1302	A-5
Q1303	A-5
Q1304	B-5
Q1305	B-5
Q1306	B-4
Q1307	B-4
Q1308	B-4
Q1309	A-4
Q1311	B-3
Q1312	B-3
Q1313	C-4
Q1314	B-3
Q1315	B-3
DIODE	
D401	B-2
D403	C-3
D405	D-3
D406	C-3
D407	B-3
D901	C-5
D902	C-6
D903	A-9
D904	A-9
D905	C-7
D906	C-7
D907	B-11
D908	E-11
D909	D-12
D910	D-11
D911	E-11
D913	B-10
D914	E-10
D915	C-9
D916	D-9
D917	D-8
D919	B-8
D910	D-7
D921	D-4
D922	D-5
D923	D-7
D924	D-10
D925	E-12
D926	E-11
D927	E-12
D928	B-12
D930	B-10
D931	D-8
D932	D-6
D1301	B-6

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

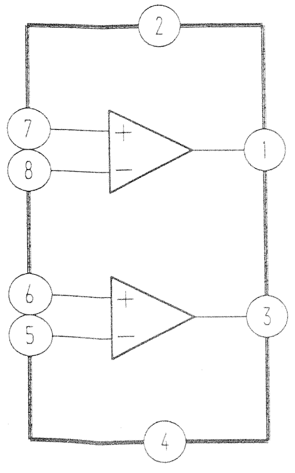
A2 BOARD IC1101 TDA8732


LIMITER
COSTAS LOOP QUADRATURE DEMODULATOR
CARRIER PHASE RECOVERY
×/2
DIV ÷ 2
CARRIER OSCILLATOR
BIT-RATE CLOCK RECOVERY
DECODER AND PARALLEL TO SERIAL CONVERTER
CLOCK OSCILLATOR
TIMING GENERATOR
CLOCK ROCESSING

A2 BOARD IC1102 SAA7282-ZP


I²C
AUTO MUTE
NICAM 728 DECODING
DIGITAL SWITCHING
FILTER
DE-EMPH
DIGITAL AUDIO INTERFACE
1-BIT DAC
NOISE SHAPER
NOISE SHAPER
1-BIT DAC
BIAS
FREQ SYNTH
XTAL OSC

A2 BOARD IC2202 TDA2822M



— A2 Board —

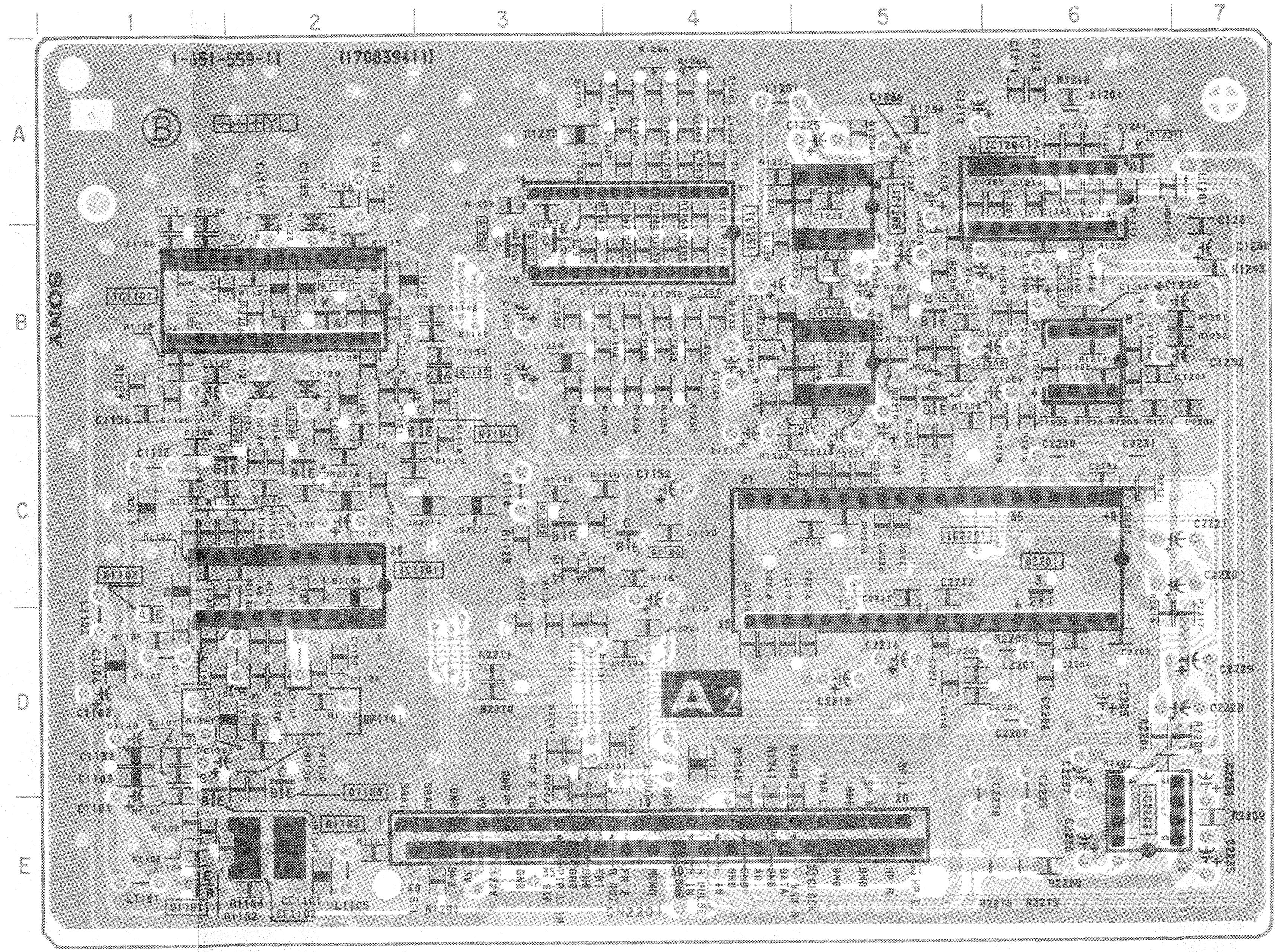
IC	
IC1101	C-2
IC1102	B-2
IC1201	B-6
IC1202	B-5
IC1203	A-5
IC1204	A-6
IC1251	B-4
IC2201	C-5
IC2202	E-6

TRANSISTOR	
Q1101	E-1
Q1102	D-1
Q1103	D-2
Q1104	C-3
Q1105	C-3
Q1106	C-4
Q1107	C-1
Q1108	C-2
Q1201	B-5
Q1202	B-5
Q1251	B-3
Q1252	B-3

DIODE	
D1101	B-2
D1102	B-3
D1103	D-1
D1201	A-6
D2201	C-6

A2 [DEMODULATOR, MICAM-DECODER, SOUND-CONTROLLER, HEADPHONE AMP]

— A2 Board —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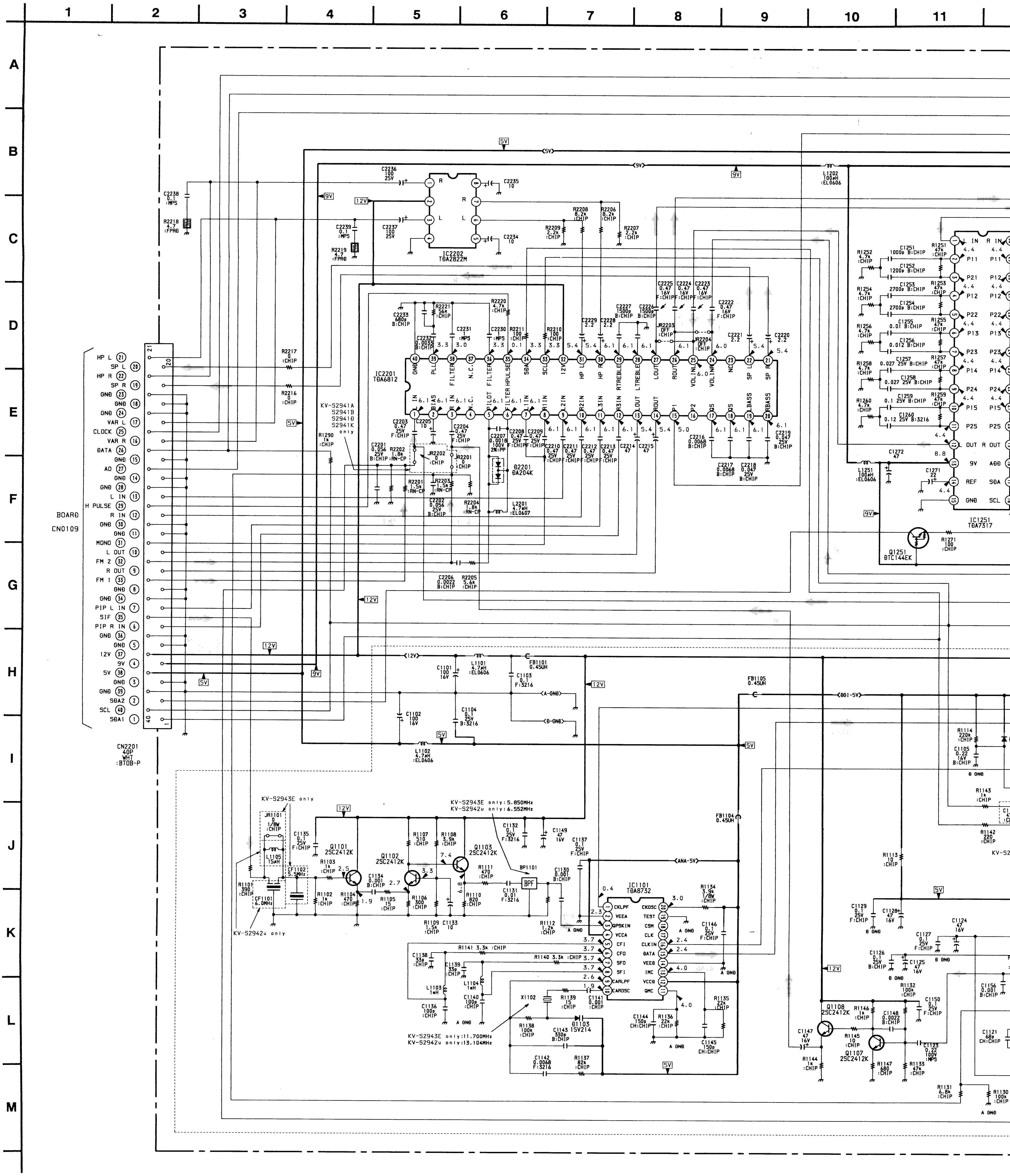
D
E
1-651-559-11
(170839411)
SONY
IC1101
IC1102
IC1201
IC1202
IC1203
IC1204
IC1251
IC2201
IC2202
X1101
X1201
CN2201
A2

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.



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H
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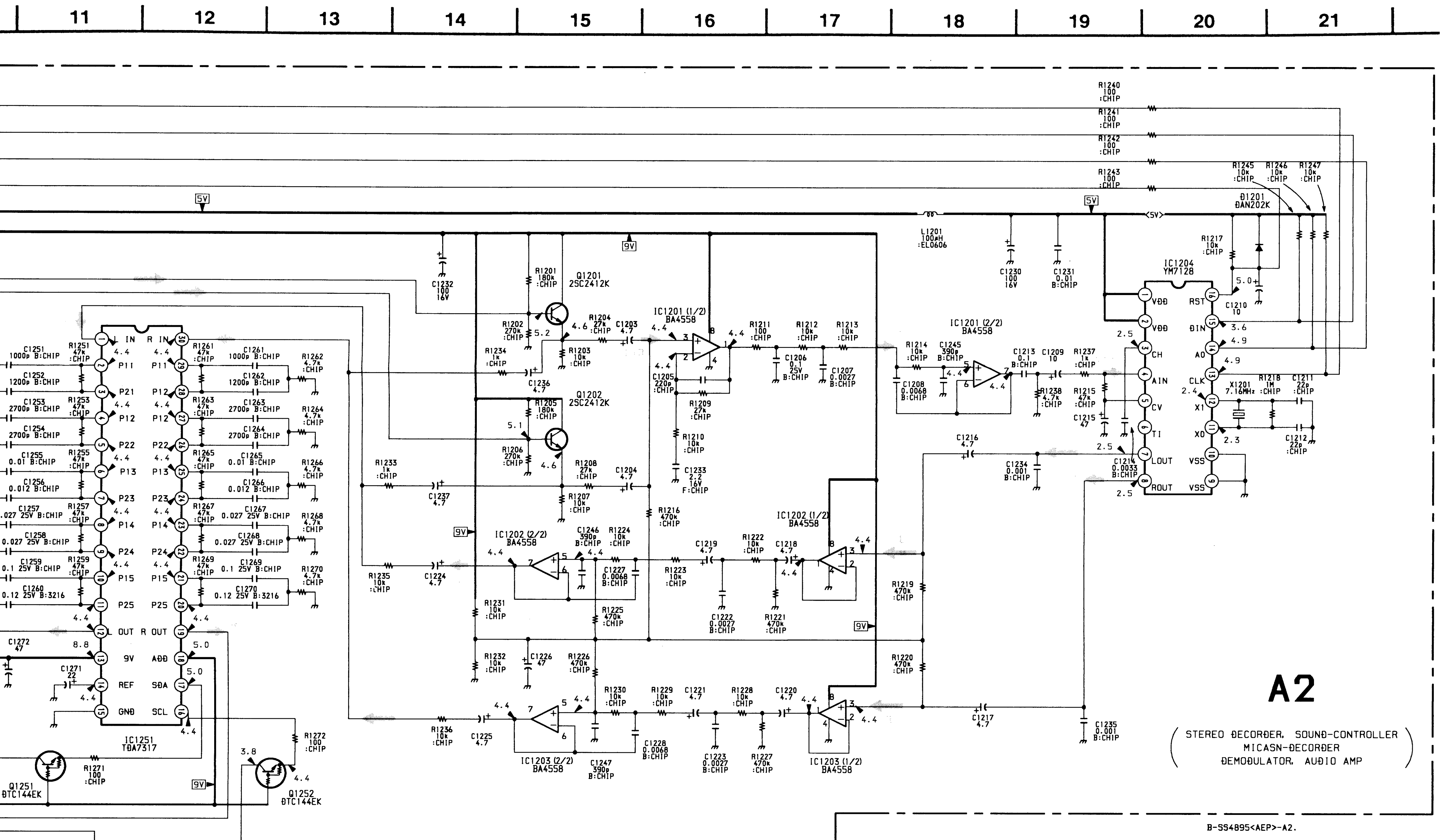
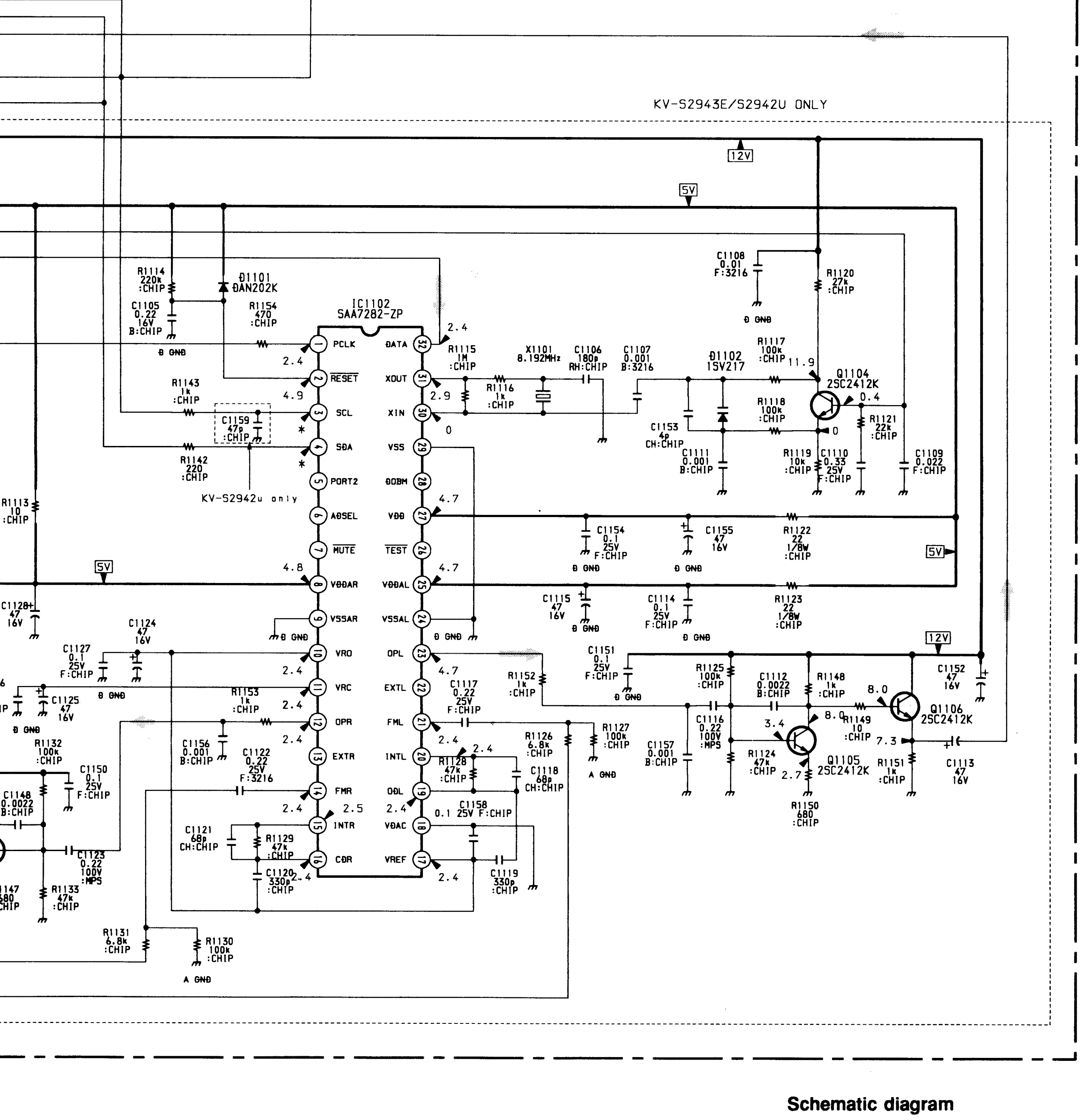
J
K
L
M
BOARD CN0109
CN2201 40P WHT :BTOB-P
HP L ㉑
SP L ⑳
HP R ㉒
SP R ⑲
GND ㉓
GND ⑱
GND ㉔
VAR L ⑰
CLOCK ㉕
VAR R ⑯
DATA ㉖
GND ⑮
AD ㉗
GND ⑭
GND ㉘
L IN ⑬
H PULSE ㉙
R IN ⑫
GND ㉚
GND ⑪
MONO ㉛
L OUT ⑩
FM 2 ㉜
R OUT ⑨
FM 1 ㉝
GND ⑧
GND ㉞
PIP L IN ⑦
SIF ㉟
PIP R IN ⑥
GND ㊱
GND ⑤
12V ㊲
9V ④
5V ㊳
GND ③
GND ㊴
SDA2 ②
SCL ㊵
SDA1 ①
IC2202 TDA2822M
IC2201 TDA6812
IC1101 TDA8732
IC1251 TDA7317
Q1251 DTC144EK
Q1101 2SC2412K
Q1102 2SC2412K
Q1103 2SC2412K
Q1107 2SC2412K
Q1108 2SC2412K
D2201 DA204K
D1103 1SV214
X1102
BP1101 BPF
CF1101 6.0MHz
CF1102 5.5MHz
L1105 15µH
JR1101 0 1/8W :CHIP
KV-S2943E only
KV-S2942u only
KV-S2941A S2941B S2941D S2941K only
KV-S2943E only:5.850MHz
KV-S2942u only:6.552MHz
KV-S2943E only:11.700MHz
KV-S2942u only:13.104MHz
L1101 4.7µH :EL0606
L1102 4.7µH :EL0606
L1202 100µH :EL0606
L1251 100µH :EL0606
L2201 4.7µH :EL0607
FB1101 0.45UH
FB1104 0.45UH
FB1105 0.45UH
5V
9V
12V
(5V)
(9V)
(12V)
(A-GND)
(B-GND)
(D01-5V)
(ANA-5V)
A GND
B GND
GND
PLL
FILTER
N.C.
FILTER
HPULSE
SDA
SCL
12V
HP L
HP R
RTREBLE
LTREBLE
LOUT
ROUT
VOLINL
VOLINR
NC
SP L
SP R
L IN
BIAS
R IN
N.C.
PILOT
FILTER
L1IN
R1IN
L2IN
R2IN
L3IN
R3IN
LOUT
ROUT
P1
P2
QS
LBASS
RBASS
CKLPF
VEEA
QPSKIN
VCCA
CFI
CFO
SFO
SFI
CARLPF
CAROSC
CKOSC
TEST
CSM
CLK
CLKIN
DATA
VEED
IMC
VCCD
QMC
L IN
R IN
P11
P21
P12
P22
P13
P23
P14
P24
P15
P25
OUT R
OUT
9V
ADD
REF
SDA
SCL
C2236 100 25V
C2235 10
C2237 100 25V
C2234 10
C2238 0.1 :MPS
R2218 4.7 :FPRD
C2239 0.1 :MPS
R2219 4.7 :FPRD
R2208 8.2k :CHIP
R2206 8.2k :CHIP
R2209 2.2k :CHIP
R2207 2.2k :CHIP
R2217 0 :CHIP
R2216 0 :CHIP
R1290 1k :CHIP
R2220 4.7k :CHIP
R2221 56k :CHIP
C2233 680p B:CHIP
C2232 0.0033 B:CHIP
C2231 1 :MPS
C2230 1 :MPS
R2211 100 :CHIP
R2210 100 :CHIP
C2229 2.2
C2228 2.2
C2227 1500p B:CHIP
C2226 1500p B:CHIP
C2225 0.47 16V F:CHIP
C2224 0.47 16V F:CHIP
C2223 0.47 16V F:CHIP
C2222 0.47 16V F:CHIP
JR2203 OFF :CHIP
JR2204 OFF :CHIP
C2221 2.2
C2220 2.2
C2203 0.47 25V F:CHIP
C2205 10
C2204 0.47 25V F:CHIP
C2201 0.056 25V B:CHIP
R2202 1.8k :RN-CP
JR2202 0 :CHIP
JR2201 0 :CHIP
R2201 1.5k :RN-CP
R2203 1.5k :RN-CP
C2202 0.056 25V B:CHIP
R2204 1.8k :RN-CP
C2207 0.0018 100V 2%:PP
C2208 0.47 25V F:CHIP
C2209 0.47 25V F:CHIP
C2210 0.47 25V F:CHIP
C2211 0.47 25V F:CHIP
C2212 0.47 25V F:CHIP
C2213 0.47 25V F:CHIP
C2214 47
C2215 47
C2216 0.0068 B:CHIP
C2217 0.0068 B:CHIP
C2218 0.047 25V B:CHIP
C2219 0.047 25V B:CHIP
C2206 0.0022 B:CHIP
R2205 5.6k :CHIP
C1101 100 16V
C1102 100 16V
C1103 0.1 F:3216
C1104 0.1 25V B:3216
R1252 4.7k :CHIP
C1251 1000p B:CHIP
R1251 47k :CHIP
C1252 1200p B:CHIP
R1254 4.7k :CHIP
C1253 2700p B:CHIP
R1253 47k :CHIP
C1254 2700p B:CHIP
R1256 4.7k :CHIP
C1255 0.01 B:CHIP
R1255 47k :CHIP
C1256 0.012 B:CHIP
R1258 4.7k :CHIP
C1257 0.027 25V B:CHIP
R1257 47k :CHIP
C1258 0.027 25V B:CHIP
R1260 4.7k :CHIP
C1259 0.1 25V B:CHIP
R1259 47k :CHIP
C1260 0.12 25V B:3216
C1272 47
C1271 22
R1271 100 :CHIP
R1101 390 :CHIP
C1135 0.1 25V F:CHIP
R1103 1k :CHIP
R1102 1k :CHIP
R1104 470 :CHIP
C1134 0.001 B:CHIP
R1105 15 :CHIP
R1106 300 :CHIP
R1107 510 :CHIP
R1108 3.9k :CHIP
R1111 470 :CHIP
R1110 820 :CHIP
C1131 0.01 F:3216
R1109 1.5k :CHIP
C1133 10
C1132 0.1 25V F:3216
C1149 47 16V
C1137 0.1 25V F:CHIP
C1130 0.001 B:CHIP
R1112 1.2k :CHIP
R1134 3.9k 1/8W :CHIP
C1146 0.1 25V F:CHIP
R1141 3.3k :CHIP
R1140 3.3k :CHIP
C1138 33p :CHIP
C1139 33p :CHIP
L1103 1mH
L1104 1mH
C1136 100p :CHIP
C1140 100p :CHIP
R1139 15 :CHIP
C1141 0.001 :CHIP
R1138 100k :CHIP
C1143 330p B:CHIP
C1142 0.0068 F:3216
R1137 82k :CHIP
C1144 150p CH:CHIP
R1136 22k :CHIP
R1135 22k :CHIP
C1145 150p CH:CHIP
R1114 220k :CHIP
C1105 0.22 16V B:CHIP
R1143 1k :CHIP
R1142 220 :CHIP
R1113 10 :CHIP
C1129 0.1 25V F:CHIP
C1128 47 16V
C1124 47 16V
C1127 0.1 25V F:CHIP
C1126 0.1 25V B:CHIP
C1125 47 16V
R1132 100k :CHIP
C1150 0.1 25V F:CHIP
R1146 1k :CHIP
C1148 0.0022 B:CHIP
C1147 47 16V
R1145 10 :CHIP
R1144 1k :CHIP
R1147 680 :CHIP
R1133 47k :CHIP
C1123 0.22 100V :MPS
C1156 0.001 B:CHIP
C1121 68p CH:CHIP
R1131 6.8k :CHIP
R1130 100k :CHIP
KV-S2

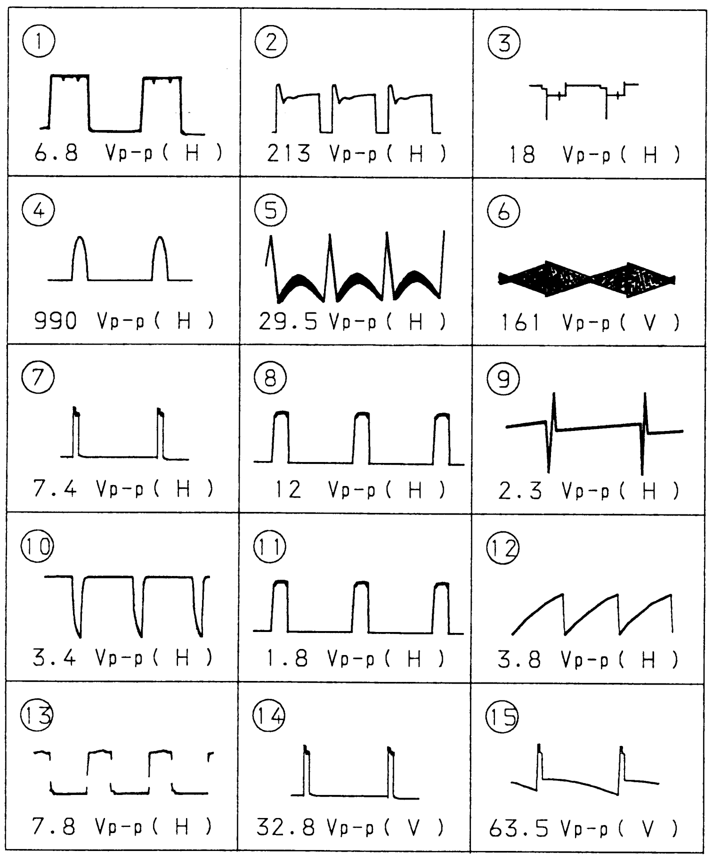

11
12
13
14
15
16
17
18
19
20
21
IC1251 TDA7317
IC1201 (1/2) BA4558
IC1201 (2/2) BA4558
IC1202 (1/2) BA4558
IC1202 (2/2) BA4558
IC1203 (1/2) BA4558
IC1203 (2/2) BA4558
IC1204 YM7128
Q1201 2SC2412K
Q1202 2SC2412K
Q1251 DTC144EK
Q1252 DTC144EK
D1201 DAN202K
L1201 100μH :EL0606
X1201 7.16MHz
5V
9V
A2
STEREO DECORDER, SOUND-CONTROLLER
MICASN-DECORDER
DEMODULATOR, AUDIO AMP
B-SS4895<AEP>-A2.


KV-S2943E/S2942U ONLY
IC1102 SAA7282-ZP
Q1104 2SC2412K
Q1105 2SC2412K
Q1106 2SC2412K
D1101 DAN202K
D1102 1SV217
X1101 8.192MHz
KV-S2942U only
12V
5V

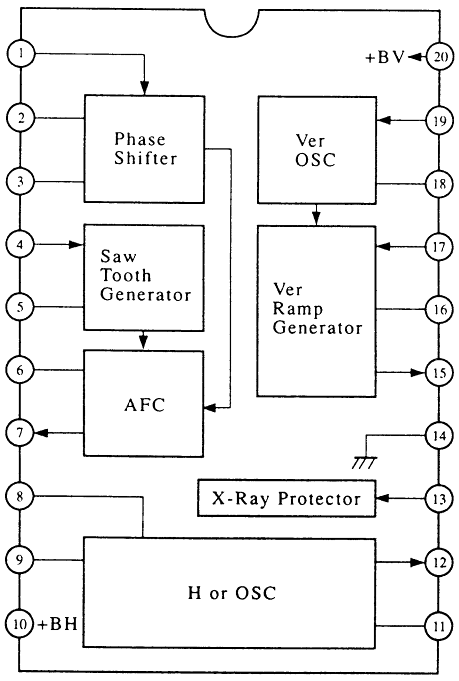
— A2 Board —

Ref. No.	Name	Function
IC1101	TDA8732	DEMODULATOR
IC1102	SAA7282	MICAL DECODER
IC1201	BA4558	EQUALIZER
IC1202	BA4558	EQUALIZER
IC1203	BA4558	EQUALIZER
IC1204	YM7128	AUDIO PROCESSER
IC1251	TDA7317	NOISE REDUCTION
IC2201	TDA6812-5	SOUND-CONTROLLER STEREO-DECODER
IC2202	TDA2822M	HEADPHONE AMP
Q1101	2SC2412K	SIF AMP
Q1102	2SC2412K	SIF AMP
Q1103	2SC2412K	SIF AMP
Q1104	2SC2412K	BUFFER
Q1105	2SC2412K	AUDIO L AMP
Q1106	2SC2412K	AUDIO L AMP
Q1107	2SC2412K	AUDIO R AMP
Q1108	2SC2412K	AUDIO R AMP
Q1201	2SC2412K	BUFFER
Q1202	2SC2412K	BUFFER
Q1251	DTC144EK	SWITCH
Q1252	DTC144EK	SWITCH
D1101	DAN202K	RESET
D1102	1SV217	VCO CAPACITOR
D1103	1SV217	VCO CAPACITOR
D1201	DAN202K	LEVEL SHIFT
D2201	DA204K	DETECTOR

— D Board —

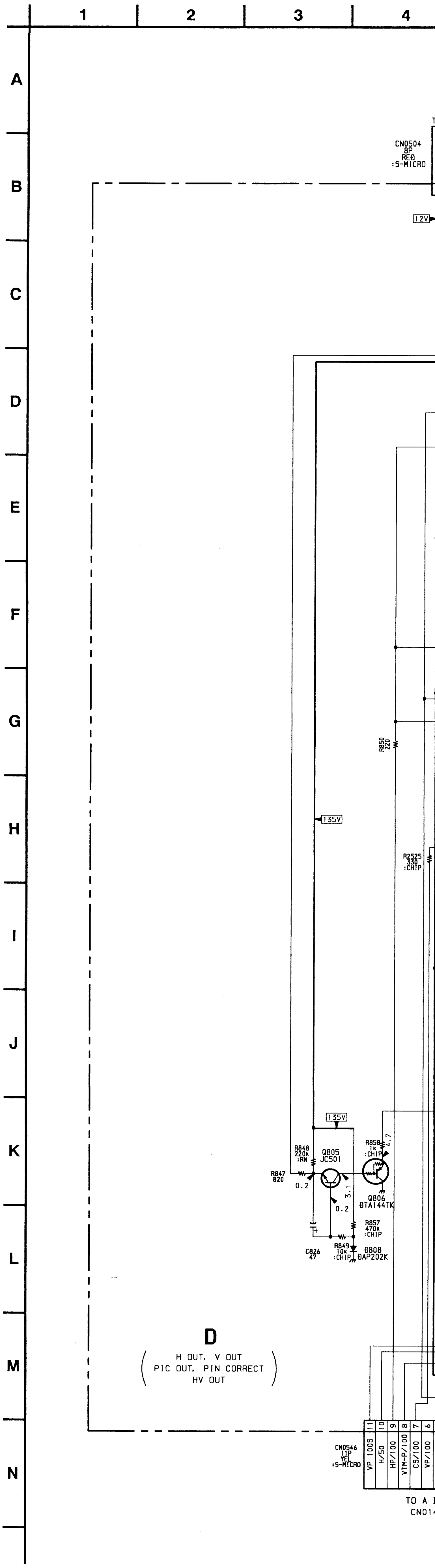


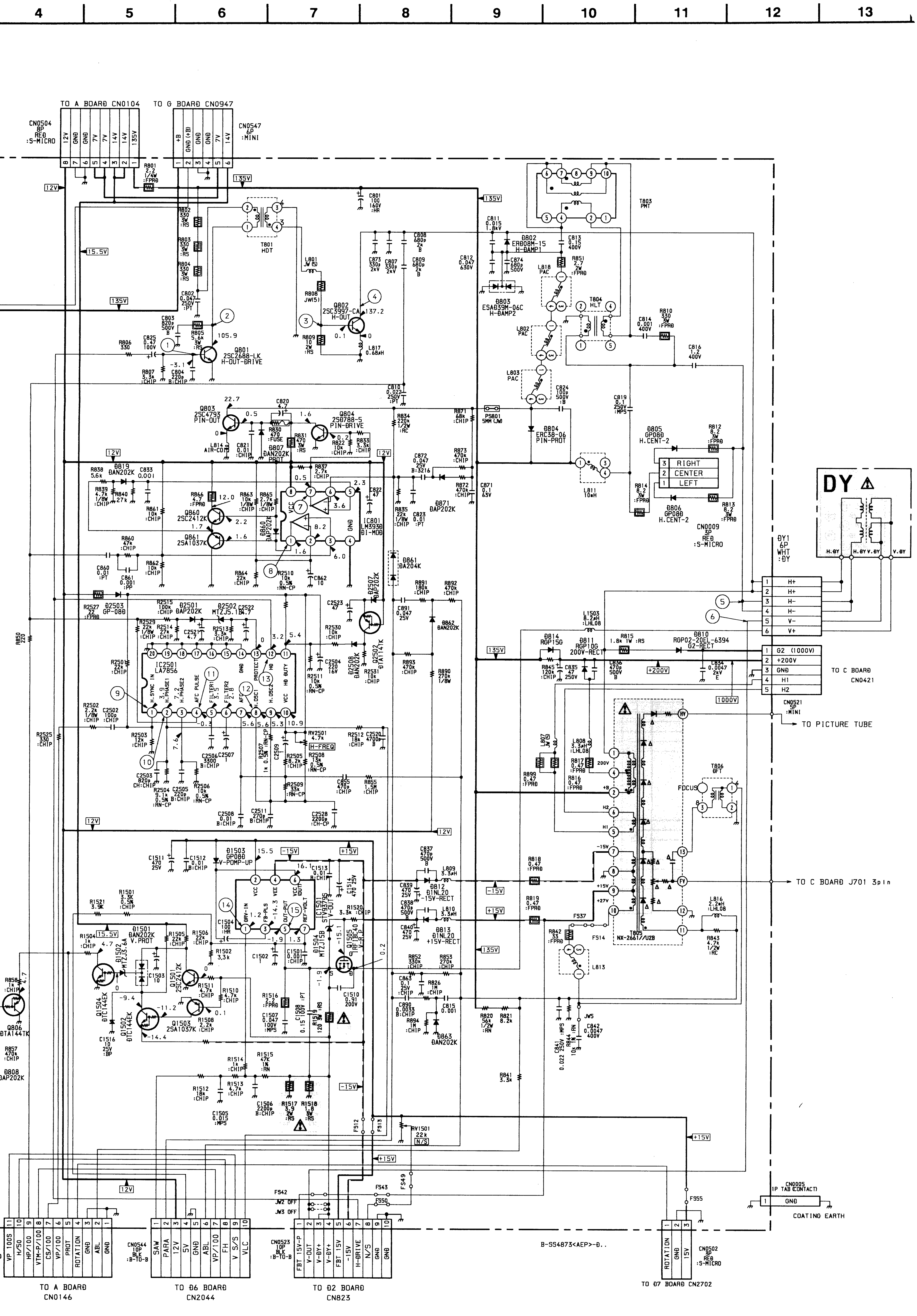
D BOARD IC2501 LA7856


1
2
3
4
5
6
7
8
9
10
+BH
+BV
20
19
18
17
16
15
14
13
12
11
Phase Shifter
Ver OSC
Saw Tooth Generator
Ver Ramp Generator
AFC
X-Ray Protector
H or OSC

— D Board —

Ref. No.	Name	Function
IC801	LM393D	DI • MOD
IC1501	STV9379S	V OUT
IC2501	LA7856	JUNGLE
Q801	2SC2688-LK	H DRIVE
Q802	2SC3997-CA	H OUT
Q803	2SC4793	PIN OUT
Q804	2SD788-5	PIN DRIVE
Q805	JC501	SWITCH DRIVE
Q806	DTA144TK	V PROTECT SWITCH
Q860	2SC2412K	PIN AMP
Q861	2SA1037K	PIN AMP
Q1501	2SC2412K	V PROTECT
Q1502	DTC144EK	V PROTECT
Q1503	2SA1037K	V PROTECT
Q1504	DTC144EK	V PROTECT
Q1515	IRF1BC40	V R.P
Q2502	DTA114TK	SWITCH
D802	ERD08M-15	H DAMPER 1
D803	ESAD39M-06C	H DAMPER 2
D804	ERC38-06	PIN PROTECT
D805	GP08D	H CENT 1
D806	GP08D	H CENT 2
D807	DAN202K	PROTECT
D808	DAP202K	PROTECT
D810	RGP02-20EL-6394	G2 RECT
D811	RGP10G	200V RECT
D812	RGP10G	–15V RECT
D813	RGP10G	+15V RECT
D814	RGP15G	200V RECT
D819	DAN202K	SWITCH
D860	DAP202K	PROTECT
D861	DA204K	LEVEL SHIFT
D862	DAN202K	LEVEL SHIFT
D863	DAN202K	LEVEL SHIFT
D871	DAP202K	SWITCH
D1501	DAN202K	V PROTECT
D1502	MTZJ3,6A	V PROTECT
D1503	GP08D	V POMP-UP
D2501	DAP202K	HP RECT
D2502	NTZJ5,1B	LEVEL SHIFT
D2503	GP-08D	VCO SUPPLY
D2507	DAP202K	PROTECT
D2508	DAN202K	SWITCH


1
2
3
4
A
B
C
D
E
F
G
H
I
J
K
L
M
N
CN0504
8P
RED
:S-MICRO
12V
135V
R850
220
R2525
330
:CHIP
135V
R848
220k
:RN
Q805
JC501
R847
820
0.2
3.1
0.2
R858
1k
:CHIP
4.7
Q806
DTA144TK
R857
470k
:CHIP
R849
10k
:CHIP
D808
DAP202K
C826
47
D
H OUT, V OUT
PIC OUT, PIN CORRECT
HV OUT
CN0546
11P
YEL
:S-MICRO
11
10
9
8
7
6
VP 100S
H/50
HP/100
VTM-P/100
CS/100
VP/100
TO A
CN01


4
5
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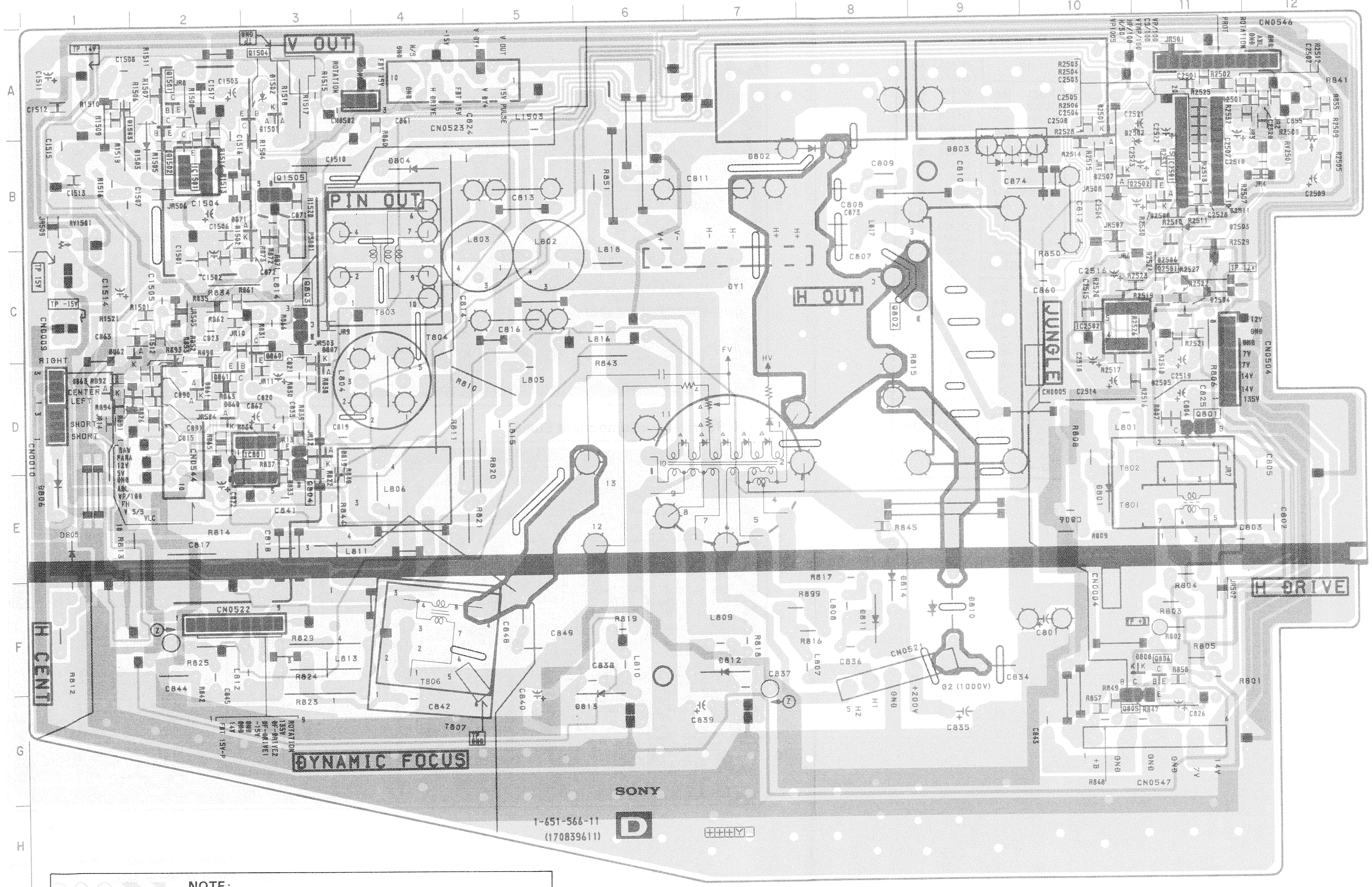
10
11
12
13
TO A BOARD CN0104
TO G BOARD CN0947
CN0504 8P RED :S-MICRO
12V
GND
GND
7V
7V
14V
14V
135V
+B
GND(+B)
GND
GND
14V
CN0547 6P :MINI
R801 2.2 1/4W :FPRD
135V
15.5V
12V
R802 330 3W :RS
R803 330 3W :RS
R804 330 3W :RS
C802 0.047 250V :PT
T801 HDT
C801 100 160V :HR
L801 JW(5)
R808 JW(5)
Q802 2SC3997-CA H-OUT
137.2
R809 10 2W :RS
L817 0.68μH
C803 820p 500V
R805 5.6k 3W :RS
105.9
Q801 2SC2688-LK H-OUT-DRIVE
R806 330
C825 0.47 100V
R807 3.3k :CHIP
C804 220p B:CHIP
-3.1
C808 680p 2k B
C873 330p 2kV
C807 330p 2kV
C809 680p 2k B
C812 0.047 630V
C811 0.015 1.8kV
D802 ER008M-15 H-DAMP1
C874 680p 500V
D803 ESA039M-06C H-DAMP2
C813 0.15 400V
R851 2.7 2W :FPRD
L818 PAC
T804 HLT
L802 PAC
L803 PAC
C824 100p 500V :B
T803 PMT
C814 0.001 400V
R810 330 3W :FPRD
C816 1.2 400V
C819 0.1 250V :MPS
C810 0.022 250V :PT
R834 220k 1/2W :RC
R871 68k :CHIP
PS801 5MM (JW)
D804 ERC38-06 PIN-PROT
Q803 2SC4793 PIN-OUT
22.7
C820 4.7
Q804 2SD788-S PIN-DRIVE
R830 470 :FUSE
R831 470 3W :RS
R822 10k :CHIP
R833 3.3k :CHIP
L814 AIR-COIL
C821 0.01 :CHIP
D807 DAN202K PROT
R837 2.7k :CHIP
C872 0.047 25V B:3216
R873 470k :CHIP
R872 470k :CHIP
C871 0.1 63V
L811 10mH
D805 GP08D H.CENT-2
R812 8.2 3W :FPRD
RIGHT
CENTER
LEFT
R814 8.2 3W :FPRD
D806 GP08D H.CENT-2
R813 8.2 3W :FPRD
CN0009 3P RED :S-MICRO
DY
DY1 6P WHT :DY
H.DY
H.DY
V.DY
V.DY
H+
H+
H-
H-
V-
V+
R838 5.6k
D819 DAN202K
C833 0.001
R839 4.7k 1/8W :CHIP
R840 27k
R861 10k :CHIP
R866 4.7 :FPRD
12.0
R863 10k 1/8W :CHIP
R865 2.7k 1/8W :CHIP
Q860 2SC2412K
Q861 2SA1037K
R860 47k :CHIP
C860 0.01 :PT
C861 0.001 :PP
R862 10k :CHIP
D860 DAP202K
IC801 LM393D D1-MOD
C822 47
R835 22k 1/8W :CHIP
C823 0.01 :PT
D871 DAP202K
R864 22k :CHIP
R2510 10k 0.5W :RN-CP
C862 10
D861 DA204K
R891 180k :CHIP
R892 470k :CHIP
Q2507 DAP202K
C891 0.047 25V
D862 DAN202K
R2527 22 :FPRD
D2503 GP-08D
R2515 100k :CHIP
D2501 DAP202K
D2502 MTZJ5.1B
C2522 4.7
R2529 22k 1/8W :CHIP
R2514 27k :CHIP
C2521
R2513 3.3k :CHIP
C2523 47
R2530 10k :CHIP
Q2502 DTA114TK
IC2501 LA7856
H.SYNC IN
H.PHASE1
H.PHASE2
AFC PULSE
FILTER1
FILTER2
AFC
H.OSC1
VCC
HD DUTY
HD
PROTECT
GND
R2501 22k :CHIP
R2502 2.2k 1/8W :CHIP
C2502 100p :CHIP
R2503 12k :CHIP
R2525 330 :CHIP
R2511 10k 0.5W :RN-CP
C2504 220 16V
Q2508 DAN202K
R2531 10k :CHIP
R893 470k :CHIP
R890 270k 1/8W
RV2501 4.7k H-FREQ
R2512 18k :CHIP
C2520 4700p B
C2503 820p CH:CHIP
R2504 9.1k 0.5W :RN-CP
C2505 220p B:CHIP
R2506 10k 0.5W :RN-CP
C2506 3300 B:CHIP
C2507
R2507 1k 0.5W :RN-CP
C2509
R2505 8.2k :CHIP
R2508 13k :RN-CP
R2509 33k :RN-CP
C855 470p :CHIP
R855 1.5M :CHIP
C2508 0.01 B:CHIP
C2511 270p B:CHIP
C2528 2200p :CH-CP
R850 220
L1503 8.2μH :LHL08
D814 RGP15G
D811 RGP10G 200V-RECT
R815 1.8k 1W :RS
D810 RGP02-20EL-6394 G2-RECT
135V
R845 120k :CHIP
C835 47 250V
C836 470p 500V B
+200V
C834 0.0047 2kV E
1000V
G2 (1000V)
+200V
GND
H1
H2
TO C BOARD CN0421
CN0521 5P :MINI
TO PICTURE TUBE
HV
L807 JW(5)
L808 3.3μH :LHL08
R817 0.47 :FPRD
200V
R816 0.47 :FPRD
R899 0.47 :FPRD
T806 DFT
FOCUS
-15V
+15V
+27V
FV
T805 NX-2661//UZB
TO C BOARD J701 3pin
L816 2.2μH :LHL08
R843 4.7k 1/2W :RC
R818 0.47 :FPRD
R819 0.47 :FPRD
FS37
R842 33 :FPRD
FS14
L813
12V
C1511 470 25V
C1512 0.01 B:CHIP
D1503 GP08D V-POMP-UP
15.5
-15V
+15V
16.1
C1513 0.01 B:CHIP
C1514 470 25V
IC1501 STV9379SE V-OUT
VCC
VCC OUT
VEE
DRV-IN
FB-PLS
OUT-PUT
REF-VOLT
C1504 100 :HR
-14.3
R1520 3.3k :CHIP
C837 470p 500V B
L809 3.3μH
C839 470 25V
C838 470p 500V
D812 D1NL20 -15V-RECT
L810 3.3μH
C840 470 25V
D813 D1NL20 +15V-RECT
135V
R1521 3.9k
R1501 3.3k 0.5W :CHIP
R1504 1k :CHIP
15.5V
D1501 DAN202K V.PROT
R1505 22k :CHIP
R1506 22k :CHIP
R1502 3.3k
C1502 1
C1501 0.001 :CHIP
D1504 MTZJ15B
Q1505 DTC114TK V-R.P
-15.1
Q1502 DTA114T
D1502 MTZJ3.6A
C1503 10
Q1501 2SC2412K
R1511 4.7k :CHIP
R1510 4.7k :CHIP
-9.4
-11.2
Q1503 2SA1037K :CHIP
R1508 2.2k :CHIP
Q1504 DTC144EK
C1516 10 25V :BP
-14.4
R1516 2.2 :FPRD
C1507 0.047 100V :MPS
C1508 0.15 100V :PT
R1519 120 3W :RS
C1510 0.91 200V
R852 330k :CHIP
R853 270k :CHIP
C863 0.1 25V B:CHIP
R826 1M :CHIP
C890 0.0033 B:CHIP
C815 0.001
R894 1M :CHIP
D863 DAN202K
R820 56k 1/2W :RN
R821 8.2k
C841 0.022 250V :MPS
R844 10 1W :RN
JW5
C842 0.0047 400V
R841 3.3k
R858 1k :CHIP
4.7
Q806 DTA144TK
R857 470k :CHIP
D808 DAP202K
R1514 1k :CHIP
R1515 47k :RN
R1512 18k :CHIP
R1513 4.7k :CHIP
C1506 2200p B:CHIP
R1517 3.9 2W :RS
R1518 1.8 3W :RS
C1505 0.015 :MPS
-15V
FS12
FS13
RV1501 22k N/S
+15V
+15V
12V
FS49
FS42
FS43
FS50
JW2 OFF
JW3 OFF
FS55
CN0005 1P TAB(CONTACT)
GND
COATING EARTH
VP 100S
H/50
HP/100
VTM-P/100
CS/100
VP/100
PROT
ROTATION
GND
ABL
GND
CN0544 10P BLK :B-TO-B
SAW
PARA
12V
5V
GND
ABL
VP/100
FH
V S/S
VLC
CN0523 10P BLK :B-TO-B
FBT 15V-P
V-OUT
V-DY+
V-DY+
FBT 15V
H-DRIVE
N/S
GND
GND
ROTATION
GND
15V
CN0502 3P RED :S-MICRO
TO A BOARD CN0146
TO D6 BOARD CN2044
TO D2 BOARD CN823
TO D7 BOARD CN2702
B-SS4873<AEP>-D..

D [V-OUT, H-OUT, JUNGLE, DI MOD]

— D Board —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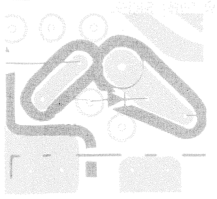
10
11
12
A
B
C
D
E
F
G
H
V OUT
PIN OUT
H OUT
JUNGLE
H DRIVE
H CENT
DYNAMIC FOCUS
IC801
IC1501
IC2501
T801
T802
T803
T804
T806
L802
L803
L805
L806
DY1
CN0522
CN0523
CN0521
CN0546
CN0547
CN0504
CN0009
CN0010
RIGHT
CENTER
LEFT
SHORT
FV
HV
G2 (1000V)
+200V
SONY
1-651-566-11
(170839611)
D

— D Board —

IC	
IC801	D-3
IC1501	B-2
IC2501	B-11
TRANSISTOR	
Q801	D-11
Q802	C-8
Q803	C-3
Q804	E-3
Q805	G-10
Q806	F-11
Q860	C-3
Q861	D-2
Q1501	A-2
Q1502	B-2
Q1503	A-2
Q1504	A-3
Q1505	B-3
Q2502	B-11
DIODE	
D802	B-8
D803	B-9
D804	B-4
D805	E-1
D806	E-1
D807	D-3
D808	F-10
D810	F-9
D811	F-8
D812	F-7
D813	G-6
D814	F-8
D819	D-3
D860	D-2
D861	D-2
D862	C-1
D863	D-1
D871	B-2
D1501	A-3
D1502	A-3
D1503	B-2
D2501	A-10
D2502	B-11
D2503	B-11
D2507	B-10
D2508	B-11
VARIABLE RESISTOR	
RV2501	B-12
RV1501	B-2



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

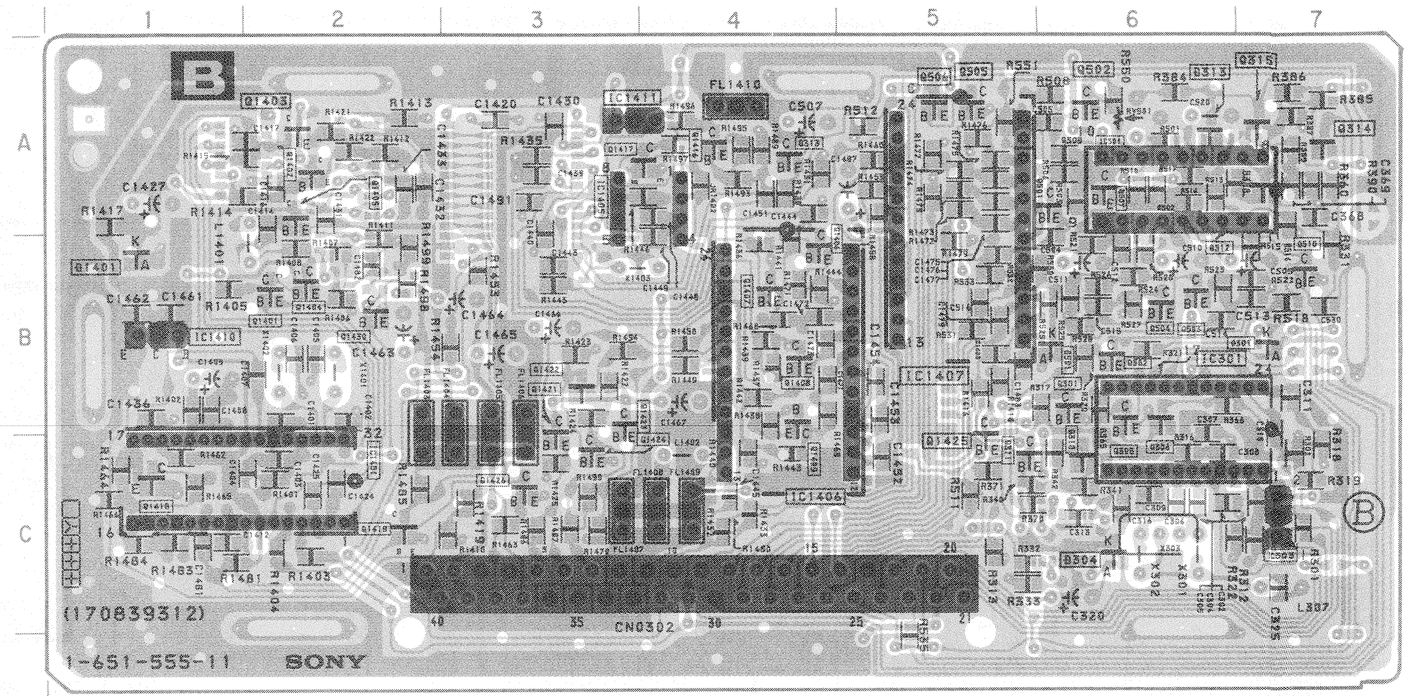
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

— B Board —

Ref.	Location
IC	
IC301	B-6
IC302	E-6
IC303	C-7
IC501	A-6
IC1401	C-2
IC1402	G-2
IC1403	G-2
IC1404	G-3
IC1405	A-3
IC1406	B-4
IC1407	B-5
IC1410	B-1
IC1411	A-3
TRANSISTOR	
Q301	B-6
Q302	B-6
Q305	B-6
Q310	C-6
Q311	C-5
Q313	A-4
Q501	A-6
Q502	A-6
Q503	B-6
Q504	B-6
Q505	A-5
Q506	A-5
Q507	A-6
Q510	A-7
Q1401	B-2
Q1402	A-1
Q1403	A-1
Q1404	B-2
Q1405	A-1
Q1406	B-4
Q1407	B-4
Q1408	B-4
Q1409	C-4
Q1416	A-4
Q1417	A-4
Q1419	C-2
Q1421	B-3
Q1422	B-3
Q1423	B-3
Q1424	C-3
Q1425	C-3
Q1426	C-3
Q1430	B-2
Q1431	F-2
DIODE	
D301	B-7
D304	C-6
D501	B-6
D1401	B-1
D1405	F-2
VARIABLE RESISTOR	
RV501	A-6

B [CHROMA DECODER, RGB SW, H.V SYNC SEP]

— B Board — <Conductor Side>


1
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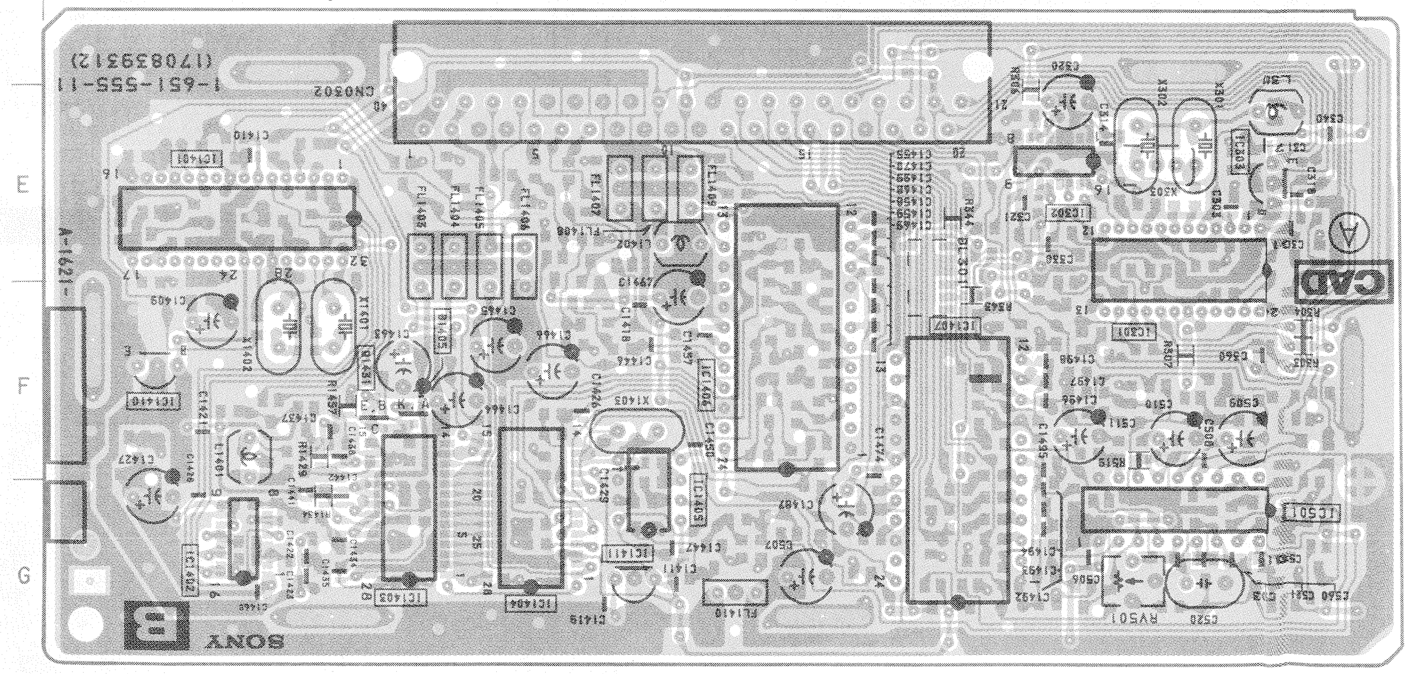
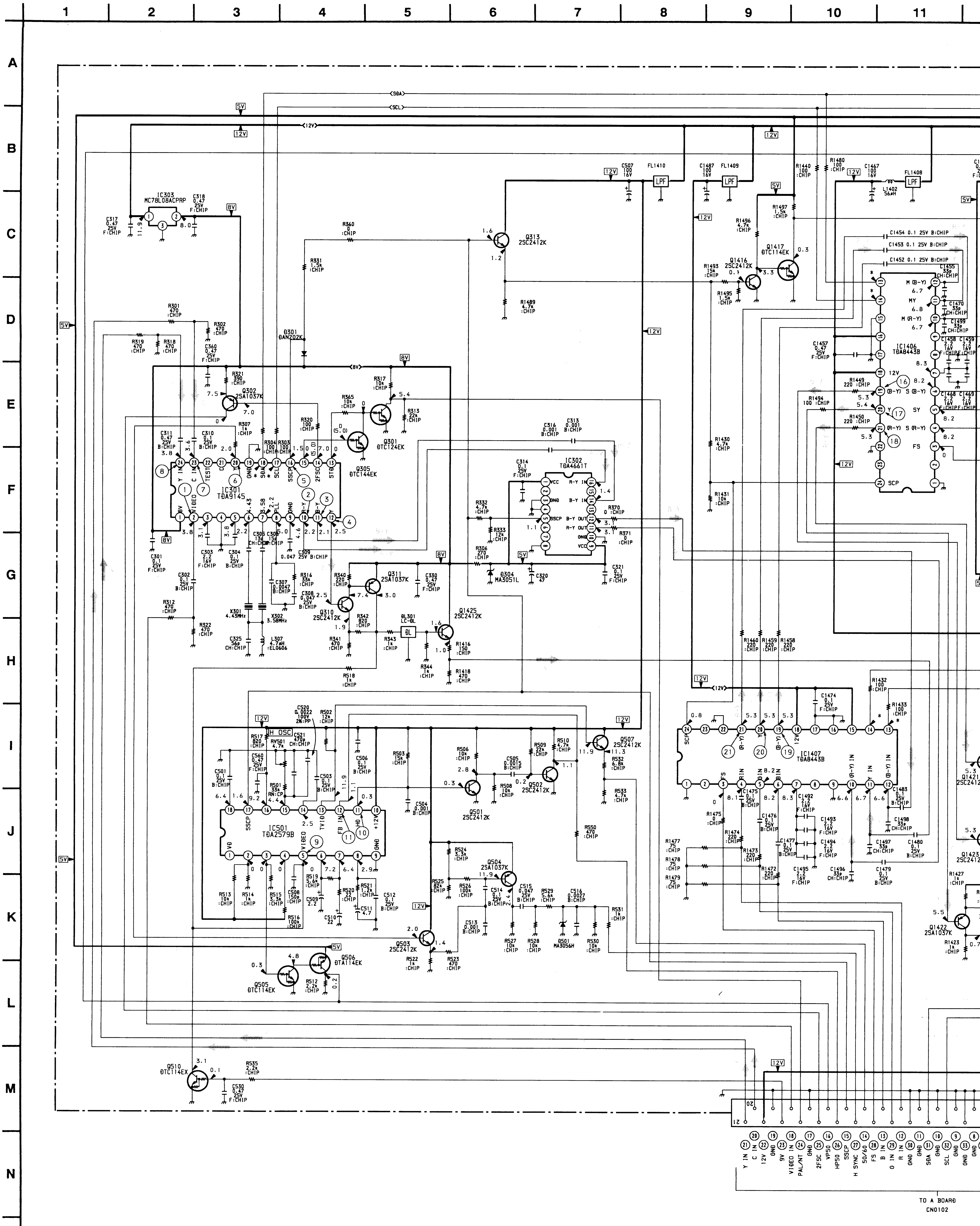
3
4
5
6
7
A
B
C
D
B
(170839312)
1-651-555-11
SONY
CN0302
IC1407
IC1406
IC1410
IC301
FL1410
(B)

— B Board — <Component Side>


E
F
G
(A)
CAD
B
SONY
CN0302
RV501

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.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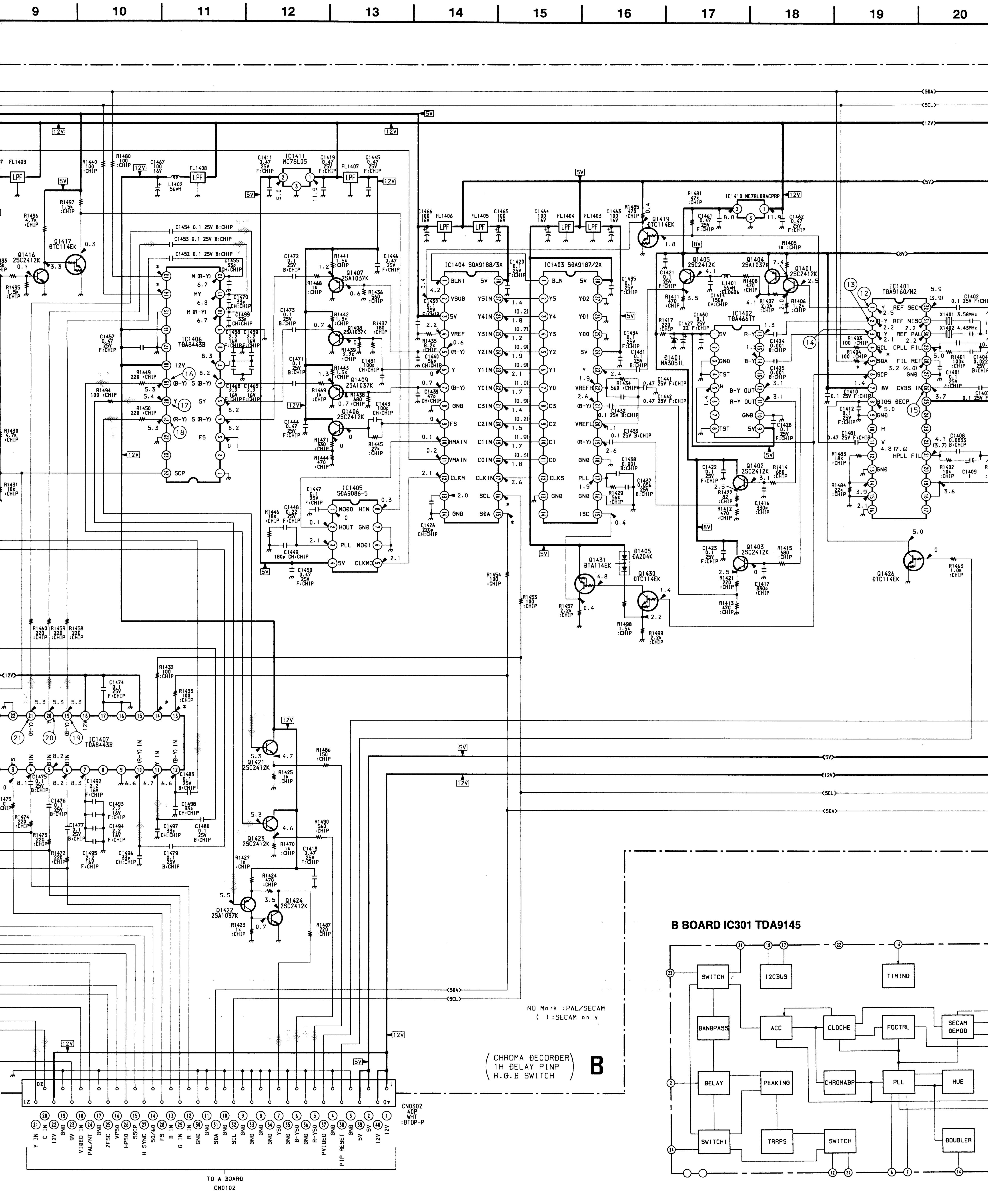
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
5V
12V
8V
SDA
SCL
IC303
MC78L08ACPRP
C317 0.47 25V F:CHIP
C318 0.47 25V F:CHIP
IC301
TDA9145
Y IN
C IN
TEST
VIDEO
GND
SDA
SCL
SC
2FSC
STB
PLL
R-Y
B-Y
X301 4.43MHz
X302 3.58MHz
L307 4.7μH EL0606
Q302 2SA1037K
Q301 DTC124EK
Q305 DTC144EK
Q313 2SC2412K
Q310 2SC2412K
Q311 2SA1037K
Q1425 2SC2412K
DL301 LC-DL
D301 DAN202K
IC302
TDA4661T
VCC
R-Y IN
B-Y IN
SSCP
R-Y OUT
B-Y OUT
D304 MA3051L
FL1410
FL1409
FL1408
LPF
L1402 56μH
Q1416 2SC2412K
Q1417 DTC114EK
IC1406
TDA8443B
M (B-Y)
MY
M (R-Y)
(B-Y)
S (B-Y)
SY
(R-Y)
S (R-Y)
FS
SCP
IC501
TDA2579B
H OSC
SSCP
TV10
FB IN
HD
+12V
VIDEO
GND
Q501 2SC2412K
Q502 2SC2412K
Q503 2SC2412K
Q504 2SA1037K
Q505 DTC114EK
Q506 DTA114EK
Q507 2SC2412K
D501 MA3056H
Q510 DTC114EX
IC1407
TDA8443B
R-Y
Y
B-Y
R IN
G IN
B IN
Y IN
Q1421
Q1422 2SA1037K
Q1423
Y IN
C IN
12V
GND
9V
VIDEO IN
PAL/NT
2FSC
VP50
HP50
SSCP
H SYNC
50/60
FS
B IN
G IN
R IN
SDA
SCL
TO A BOARD
CN0102


9
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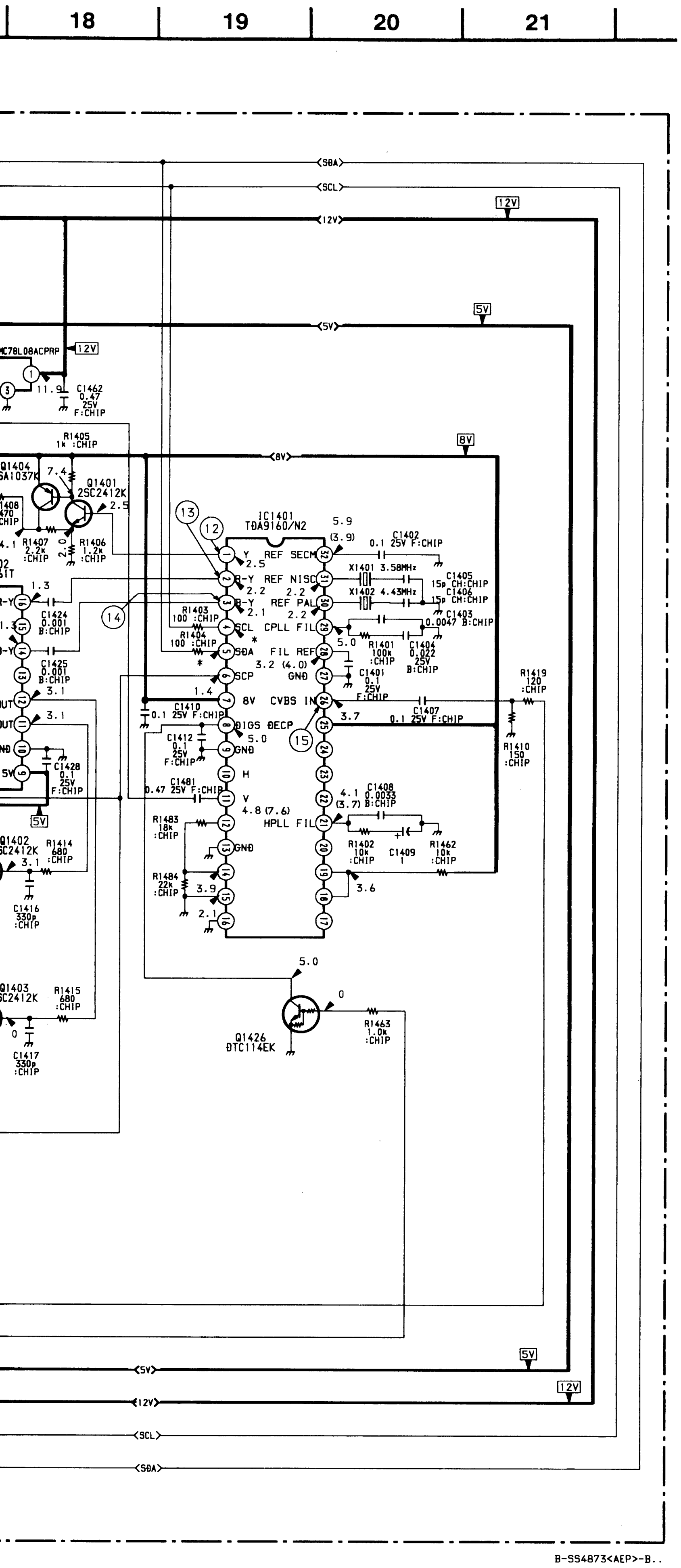
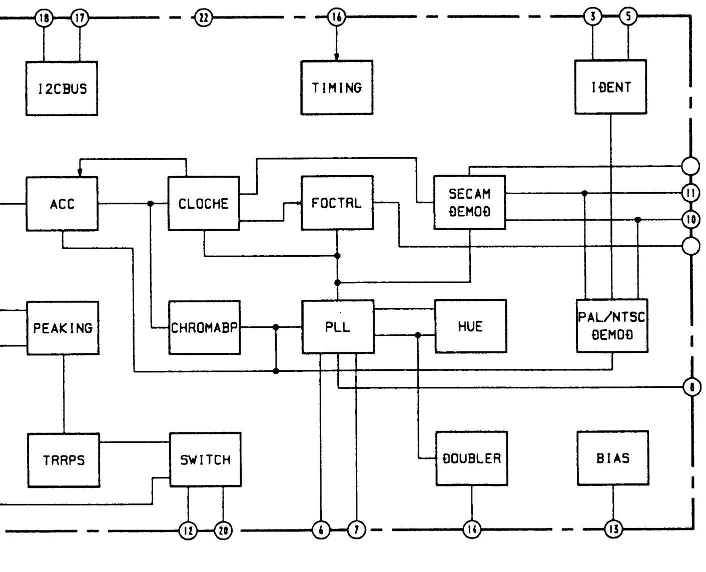
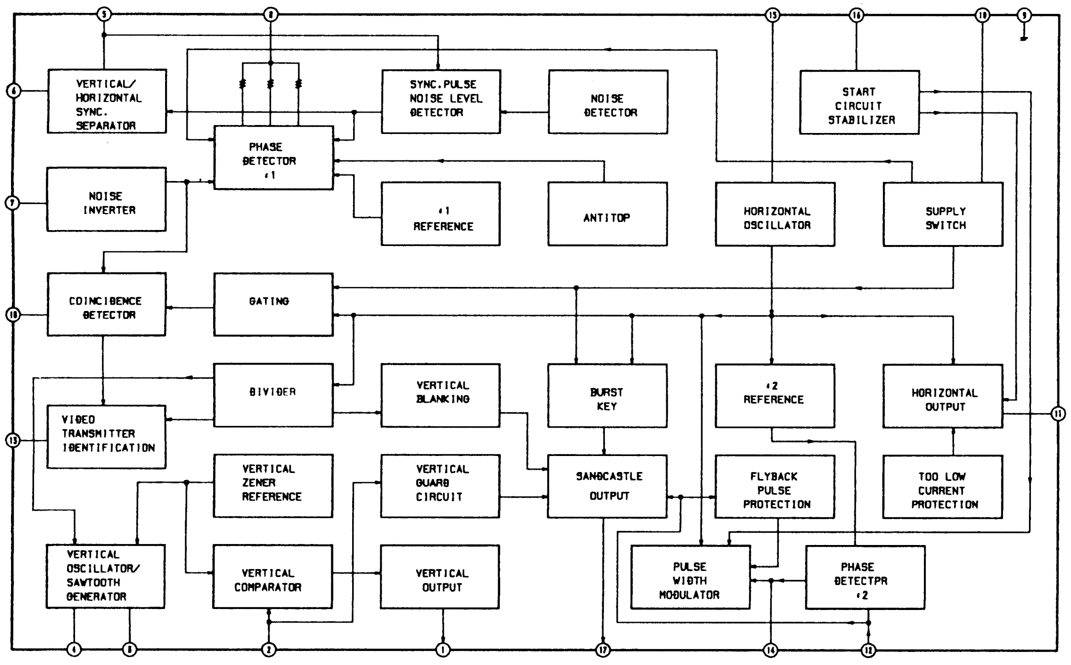
16
17
18
19
20
IC1406 TDA8443B
IC1411 MC78L05
IC1404 SDA9188/3X
IC1403 SDA9187/2X
IC1410 MC78L08ACPRP
IC1402 TDA4661T
IC1401 TDA9160/N2
IC1405 SDA9086-5
IC1407 TDA8443B
LPF
FL1409
FL1408
FL1407
FL1406
FL1405
FL1404
FL1403
X1401 3.58MHz
X1402 4.43MHz
CN0302 40P WHT :BTOP-P
TO A BOARD CN0102
Y IN
C IN
12V
GND
9V
VIDEO IN
PAL/NT
2FSC
VP50
HP50
SSCP
H SYNC
50/60
FS
B IN
G IN
R IN
GND
SDA
SCL
Y50
B-Y50
R-Y50
PVIDEO
PIP RESET
5V
NO Mark :PAL/SECAM
( ) :SECAM only
CHROMA DECORDER
1H DELAY PINP
R.G.B SWITCH
B
B BOARD IC301 TDA9145
SWITCH
I2CBUS
TIMING
BANDPASS
ACC
CLOCHE
FOCTRL
SECAM DEMOD
DELAY
PEAKING
CHROMABP
PLL
HUE
SWITCHI
TRAPS
SWITCH
DOUBLER


18
19
20
21
<SDA>
<SCL>
12V
<12V>
5V
<5V>
MC78L08ACPRP
11.9
C1462 0.47 25V F:CHIP
R1405 1k :CHIP
8V
<8V>
Q1404 2SA1037K
Q1401 2SC2412K
R1407 2.2k :CHIP
R1406 1.2k :CHIP
IC1401 TDA9160/N2
Y REF SEC
R-Y REF NISC
B-Y REF PAL
SCL CPLL FIL
SDA FIL REF
SCP GND
8V CVBS IN
DIGS DECP
GND
H
V
HPLL FIL
GND
X1401 3.58MHz
X1402 4.43MHz
C1402 0.1 25V F:CHIP
C1405 15p CH:CHIP
C1406 15p CH:CHIP
C1403 0.0047 B:CHIP
R1401 100k :CHIP
C1404 0.022 25V B:CHIP
C1401 0.1 25V F:CHIP
C1407 0.1 25V F:CHIP
C1408 0.0033 B:CHIP
R1402 10k :CHIP
C1409 1
R1462 10k :CHIP
R1403 100 :CHIP
R1404 100 :CHIP
C1410 0.1 25V F:CHIP
C1412 0.1 25V F:CHIP
C1481 0.47 25V F:CHIP
R1483 18k :CHIP
R1484 22k :CHIP
C1424 0.001 B:CHIP
C1425 0.001 B:CHIP
C1428 0.1 25V F:CHIP
R1419 120 :CHIP
R1410 150 :CHIP
Q1402 2SC2412K
R1414 680 :CHIP
C1416 330p :CHIP
Q1403 2SC2412K
R1415 680 :CHIP
C1417 330p :CHIP
Q1426 DTC114EK
R1463 1.0k :CHIP
B-SS4873<AEP>-B..

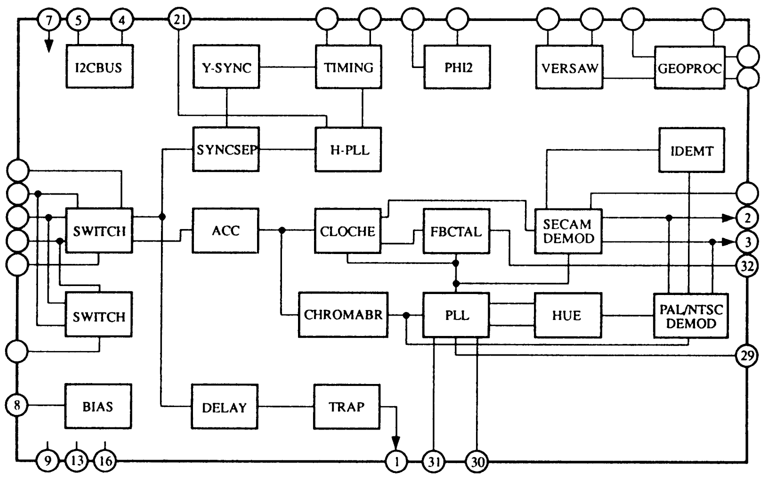
1 TDA9145


I2CBUS
TIMING
IDENT
ACC
CLOCHE
FOCTRL
SECAM DEMOD
PEAKING
CHROMABP
PLL
HUE
PAL/NTSC DEMOD
TRRPS
SWITCH
DOUBLER
BIAS

B BOARD IC501 TDA2579B


VERTICAL/ HORIZONTAL SYNC. SEPARATOR
PHASE DETECTOR ϕ1
SYNC. PULSE NOISE LEVEL DETECTOR
NOISE DETECTOR
START CIRCUIT STABILIZER
NOISE INVERTER
ϕ1 REFERENCE
ANTITOP
HORIZONTAL OSCILLATOR
SUPPLY SWITCH
COINCIDENCE DETECTOR
GATING
DIVIDER
VERTICAL BLANKING
BURST KEY
ϕ2 REFERENCE
HORIZONTAL OUTPUT
VIDEO TRANSMITTER IDENTIFICATION
VERTICAL ZENER REFERENCE
VERTICAL GUARD CIRCUIT
SANDCASTLE OUTPUT
FLYBACK PULSE PROTECTION
TOO LOW CURRENT PROTECTION
VERTICAL OSCILLATOR/ SAWTOOTH GENERATOR
VERTICAL COMPARATOR
VERTICAL OUTPUT
PULSE WIDTH MODULATOR
PHASE DETECTPR ϕ2

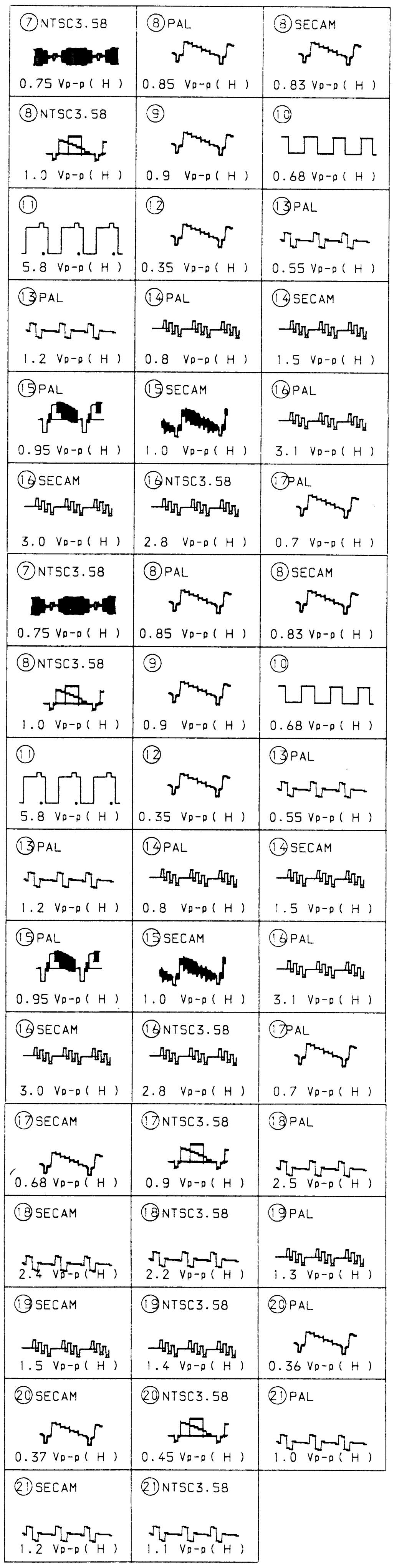
B BOARD IC1401 TDA9160/N2


7
5
4
21
I2CBUS
Y-SYNC
TIMING
PHI2
VERSAW
GEOPROC
SYNCSEP
H-PLL
IDEMT
SWITCH
ACC
CLOCHE
FBCTAL
SECAM DEMOD
2
3
32
SWITCH
CHROMABR
PLL
HUE
PAL/NTSC DEMOD
29
8
BIAS
DELAY
TRAP
9
13
16
1
31
30

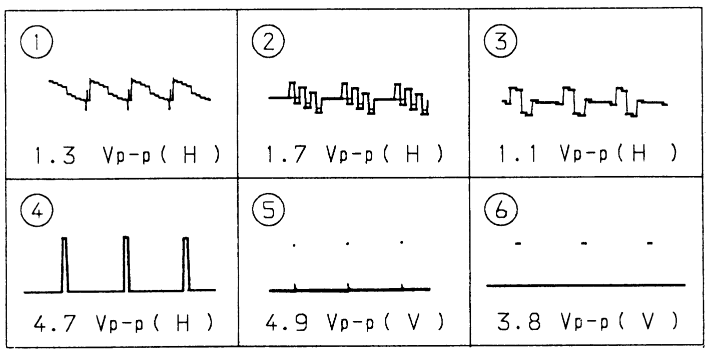
— B Board —

Ref. No.	Name	Function
IC301	TDA9145	CHROMA DECODER
IC302	TDA4661T	1H-DELAY
IC303	MC78L08ACPRP	8V REG
IC501	TDA2579B	H•V SYNC SEP
IC1401	TDA9160/N2	CHROMA DECODER
IC1402	TDA4661T	1H-DELAY
IC1403	SDA9187/2X	PIP
IC1404	SDA9188/3X	PIP
IC1405	SDA9086-5	PIP-PLL
IC1406	TDA844	RGB-SW
IC1407	TDA8443B	RGB-SW
IC1410	MC78L08ACPRP	8V REG
IC1411	MC78L05	5V REG
Q301	DTC124EK	PAL/NT SWITCH
Q302	2SA1037K	2 Fsc AMP
Q305	DTC144EK	PAL/NT SWITCH
Q310	2SC2412K	Y AMP
Q311	2SA1037K	Y CLAMP
Q313	2SC2412K	SSCP BUFFER
Q501	2SC2412K	H PULSE DRIVE
Q502	2SC2412K	H PULSE DRIVE
Q503	2SC2412K	H SYNC SEP
Q504	2SA1037K	BUFFER
Q505	DTC114EK	V PULSE DRIVE
Q506	DTA114EK	V PULSE DRIVE
Q507	2SC2412K	ID BUFFER
Q510	DTC114EX	VIDEO MUTE
Q1401	2SC2412K	Y AMP
Q1402	2SC2412K	R-Y BUFFER
Q1403	2SC2412K	B-Y BUFFER
Q1404	2SA1037K	Y BUFFER
Q1405	2SC2412K	BUFFER
Q1406	2SC2412K	BUFFER
Q1407	2SA1037K	BUFFER
Q1408	2SA1037K	BUFFER
Q1409	2SA1037K	BUFFER
Q1416	2SC2412K	V PULSE SEP
Q1417	DTC114EK	V PULSE INVERTER
Q1419	DTC114EK	V PULSE AMP
Q1421	2SC2412K	R-Y BUFFER
Q1422	2SA1037K	Y AMP
Q1423	2SC2412K	B-Y BUFFER
Q1424	2SC2412K	Y BUFFER
Q1425	2SC2412K	Y BUFFER
Q1426	DTC114EK	RESET SWITCH
Q1430	DTC114EK	SSCP SLICE
Q1431	DTA114EK	INVERTER
D301	DAN202K	LIMITTER
D304	MA3051L	PROTECT
D501	MA3056H	PROTECT
D1401	MA3051L	5V REG
D1405	DA204K	BIAS

— B Board —



— Q Board —

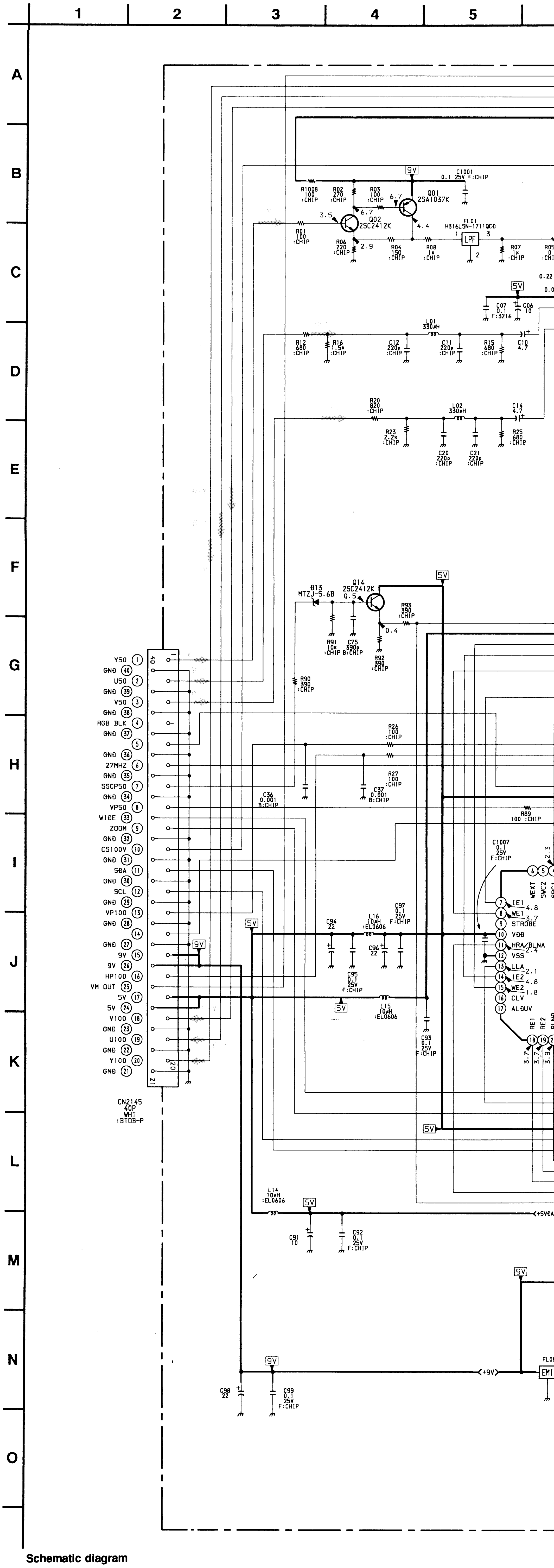


— Q Board —

Ref. No.	Name	Function
IC1	TDA8755	A/D CONVERTOR
IC2	TMS4C2970	D-RAM
IC3	TMS4C2970	D-RAM
IC4	SAA4940H	NOISE REDUCTION
IC6	SAA4951	ECO-2 CONTROL
IC7	83C652	MICRO-COMPUTER
IC8	78L05	5V REG
IC9	MC74F08D	BUFFER
IC10	MC74F08D	BUFFER
IC11	78L05	5V REG
IC12	HEF4046BT	PLL
IC13	TC4SS66F	SWITCH
IC14	78L05	5V REG
IC15	TC4S66F	SWITCH
IC16	MC74F08D	BUFFER
IC17	SAA7158	BACK END
IC18	78L05	5V REG
IC19	TC4S66F	SWITCH
IC20	TC4S66F	SWITCH
IC21	TC4S66F	SWITCH
IC22	TC4S66F	SWITCH
Q1	2SA1037K	Y AMP
Q2	2SC2412K	Y AMP
Q8	BF550	BUFFER
Q9	2SC2412K	BUFFER
Q10	BF550	BUFFER
Q11	BF550	
Q12	2SA1037K	B-Y BUFFER
Q13		B-Y BUFFER
Q14	2SC2412K	BUFFER
Q16		BUFFER
Q17	DTC144EK	SWITCH
Q18	DTC144EK	SWITCH
Q20	2SA1037K	Y BUFFER
Q21	2SA1037K	R-Y AMP
Q22	2SC2412K	R-Y AMP
Q24	DTC144EK	SWITCH
D3	BBY40	VARI-CAP
D4	BAS16	SWITCH
D5	BAS16	SWITCH
D6	BAS16	PROTECT
D8	BBY40	VARI-CAP
D9	BAS16	LIMITTER
D10	BBY40	VARI-CAP
D11	BAS16	SWITCH
D12	BAS16	LIMITTER
D13	MA3056M	LEVEL SHIFT
D15	DAN202K	SWITCH
D16	DAN202K	SWITCH

Schematic diagram

← B board


1
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A
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D
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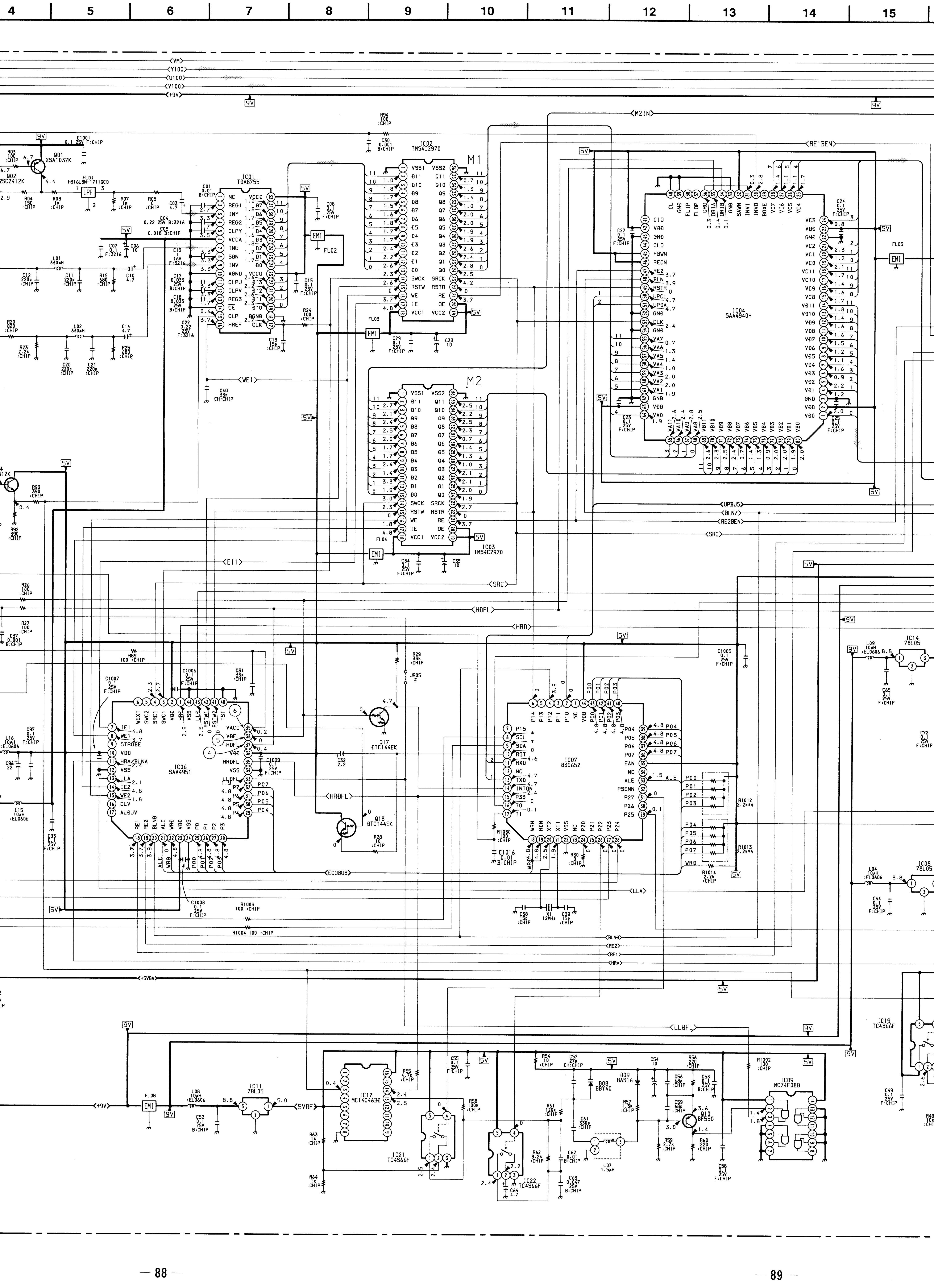
F
G
H
I
J
K
L
M
N
O
9V
C1001 0.1 25V F:CHIP
R1008 100 :CHIP
R02 270 :CHIP
R03 100 :CHIP
Q01 2SA1037K
Q02 2SC2412K
R01 100 :CHIP
R06 220 :CHIP
R04 150 :CHIP
R08 1k :CHIP
FL01 H316LSN-1711QC0
LPF
R07 1k :CHIP
5V
C07 0.1 F:3216
C06 10
L01 330µH
R12 680 :CHIP
R16 1.5k :CHIP
C12 220p :CHIP
C11 220p :CHIP
R15 680 :CHIP
C10 4.7
R20 820 :CHIP
L02 330µH
C14 4.7
R23 2.2k :CHIP
C20 220p :CHIP
C21 220p :CHIP
R25 680 :CHIP
D13 MTZJ-5.6B
Q14 2SC2412K
R93 390 :CHIP
R91 10k :CHIP
C75 390p B:CHIP
R92 390 :CHIP
R90 390 :CHIP
YSO ①
GND ㊵
USO ②
GND ㊴
VSO ③
GND ㊳
RGB BLK ④
GND ㊲
⑤
GND ㊱
27MHZ ⑥
GND ㉟
SSCPSO ⑦
GND ㉞
VPSO ⑧
WIDE ㉝
ZOOM ⑨
GND ㉜
CS100V ⑩
GND ㉛
SDA ⑪
GND ㉚
SCL ⑫
GND ㉙
VP100 ⑬
GND ㉘
⑭
GND ㉗
9V ⑮
9V ㉖
HP100 ⑯
VM OUT ㉕
5V ⑰
5V ㉔
V100 ⑱
GND ㉓
U100 ⑲
GND ㉒
Y100 ⑳
GND ㉑
CN2145 40P WHT :BTOB-P
R26 100 :CHIP
R27 100 :CHIP
C36 0.001 B:CHIP
C37 0.001 B:CHIP
R89 100 :CHIP
C1007 0.1 25V F:CHIP
C94 22
L16 10µH :EL0606
C97 0.1 25V F:CHIP
C96 22
C95 0.1 25V F:CHIP
L15 10µH :EL0606
C93 0.1 25V F:CHIP
IE1
WE1
STROBE
VDD
HRA/BLNA
VSS
LLA
IE2
WE2
CLV
ALBUV
WEXT
L14 10µH :EL0606
C91 10
C92 0.1 25V F:CHIP
<+5VBA
<+9V>
C98 22
C99 0.1 25V F:CHIP
EMI

Schematic diagram

Q board →


4
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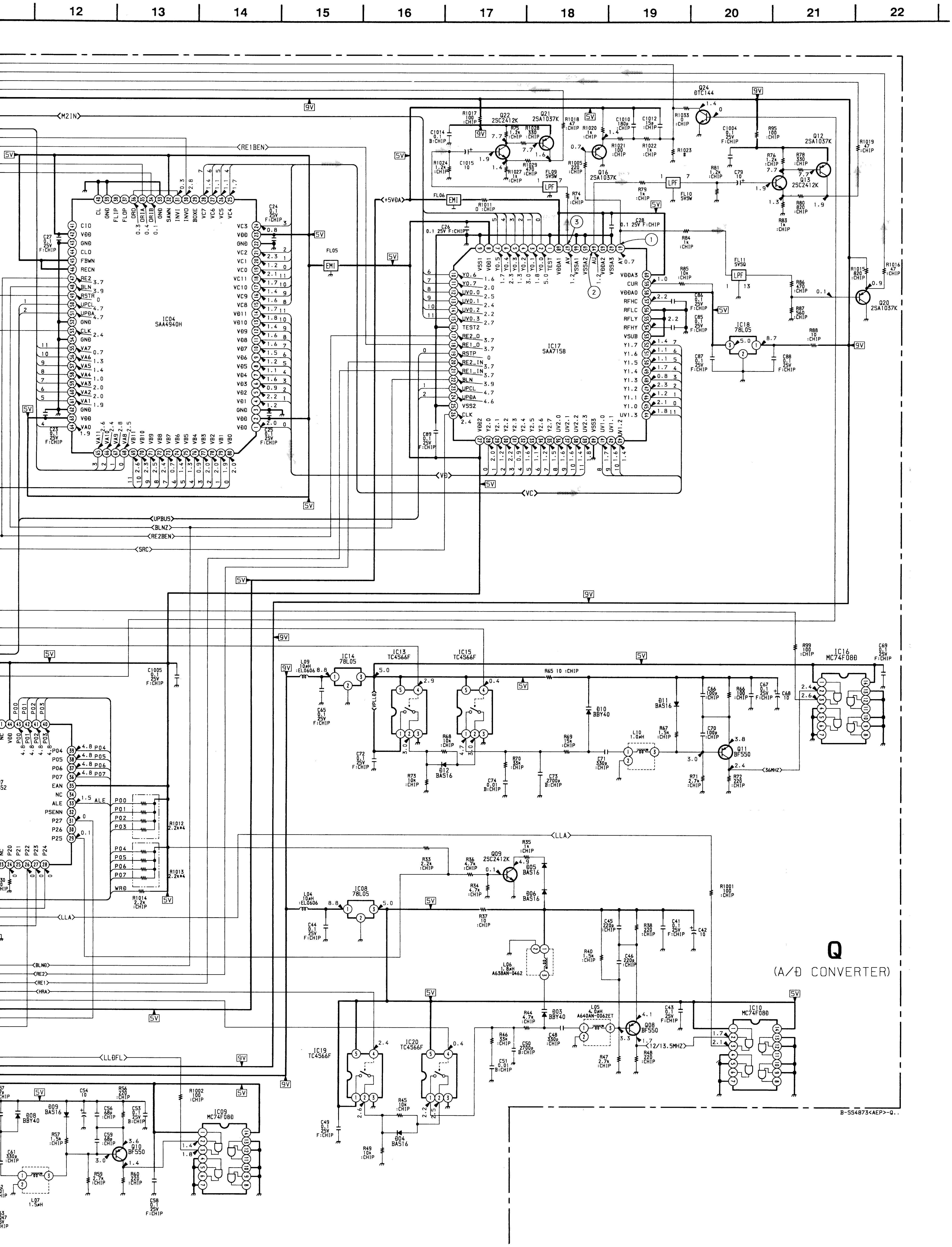
13
14
15
VM
Y100
U100
V100
+9V
9V
5V
M2IN
RE1BEN
R94 100 :CHIP
C30 0.001 B:CHIP
IC02 TMS4C2970
M1
M2
IC03 TMS4C2970
IC01 TDA8755
IC04 SAA4940H
IC06 SAA4951
IC07 83C652
IC08 78L05
IC09 MC74F08D
IC11 78L05
IC12 MC14046BD
IC14 78L05
IC19 TC4S66F
IC21 TC4S66F
IC22 TC4S66F
Q01 2SA1037K
Q02 2SC2412K
Q10 BF550
Q17 DTC144EK
Q18 DTC144EK
D08 BBY40
D09 BAS16
X1 12MHz
FL01 H316LSN-1711QCD
LPF
FL02
FL03
FL04
FL05
FL08
EMI
L01 330μH
L02 330μH
L04 10μH :EL0606
L07 1.5μH
L08 10μH :EL0606
L09 10μH :EL0606
L15 10μH :EL0606
L16 10μH :EL0606
WE1
EI1
SRC
HDFL
HRD
UPBUS
BLNZ
RE2BEN
ECOBUS
LLA
BLND
RE2
RE1
HRA
+5VBA
LLDFL
5VDF
JR05
R1003 100 :CHIP
R1004 100 :CHIP
R1012 2.2k×4
R1013 2.2k×4
R1014 2.2k :CHIP


12
13
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21
22
IC04
SAA4940H
IC17
SAA7158
IC18
78L05
IC16
MC74F08D
IC14
78L05
IC13
TC4S66F
IC15
TC4S66F
IC08
78L05
IC19
TC4S66F
IC20
TC4S66F
IC10
MC74F08D
IC09
MC74F08D
Q24
DTC144
Q22
2SC2412K
Q21
2SA1037K
Q16
2SA1037K
Q12
2SA1037K
Q13
2SC2412K
Q20
2SA1037K
Q11
BF550
Q09
2SC2412K
Q08
BF550
Q10
BF550
FL05
FL06
FL09
5V5W
FL10
5V5W
FL11
5V5Q
EMI
LPF
L09
10μH
:EL0606
L04
10μH
:EL0606
L10
1.0μH
L06
1.8μH
A638AN-0462
L05
4.0μH
A640AN-0062ET
L07
1.5μH
D10
BBY40
D11
BAS16
D12
BAS16
D05
BAS16
D06
BAS16
D03
BBY40
D04
BAS16
D08
BBY40
D09
BAS16
<M2IN>
<RE1BEN>
<+5VDA>
<VD>
<VC>
<UPBUS>
<BLNZ>
<RE2BEN>
<SRC>
<LLA>
<BLND>
<RE2>
<RE1>
<HRA>
<LLDFL>
<36MHZ>
<12/13.5MHZ>
5V
9V
R1012
2.2k×4
R1013
2.2k×4
R1014
2.2k
:CHIP

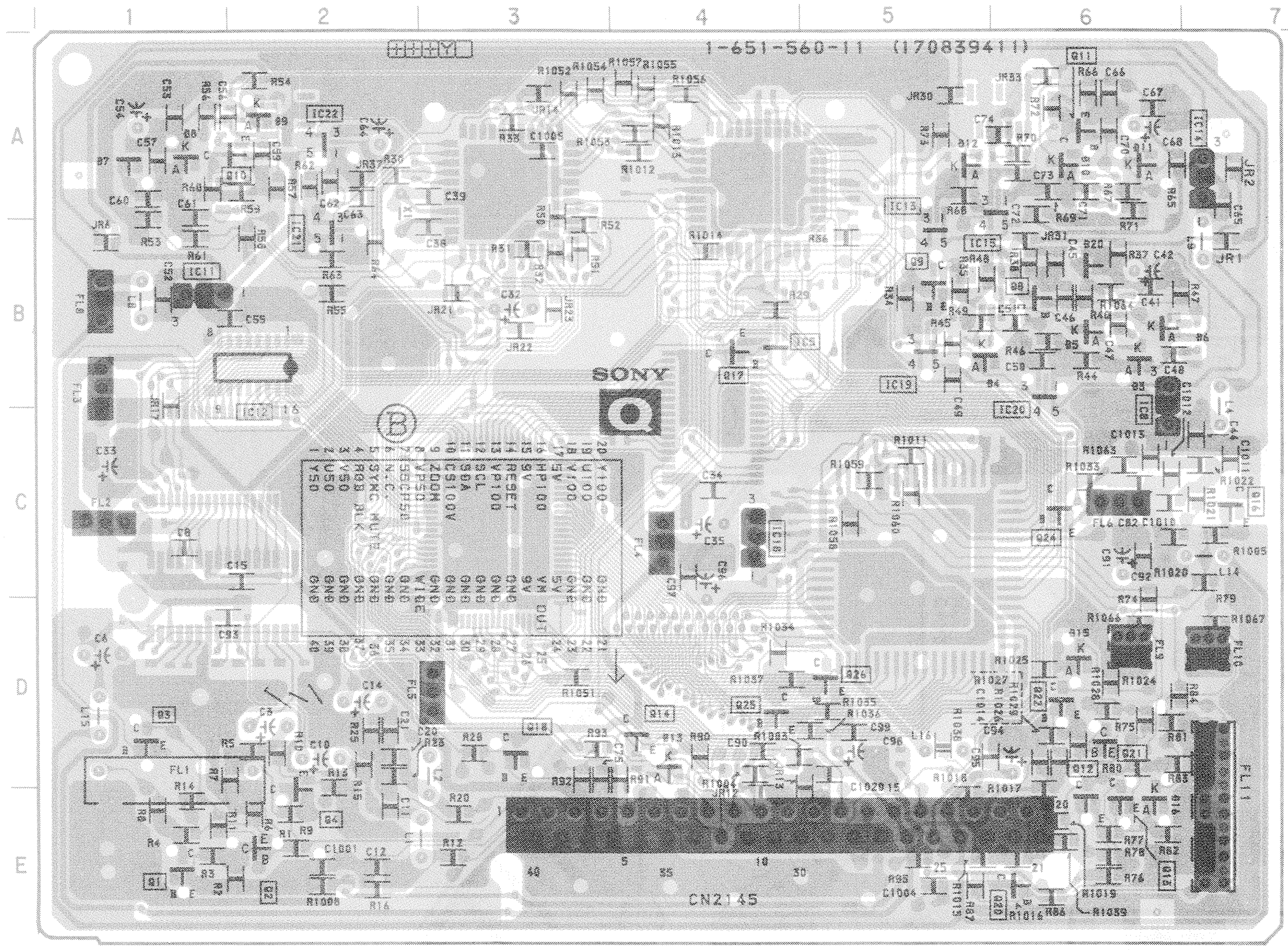
Q

(A/D CONVERTER)

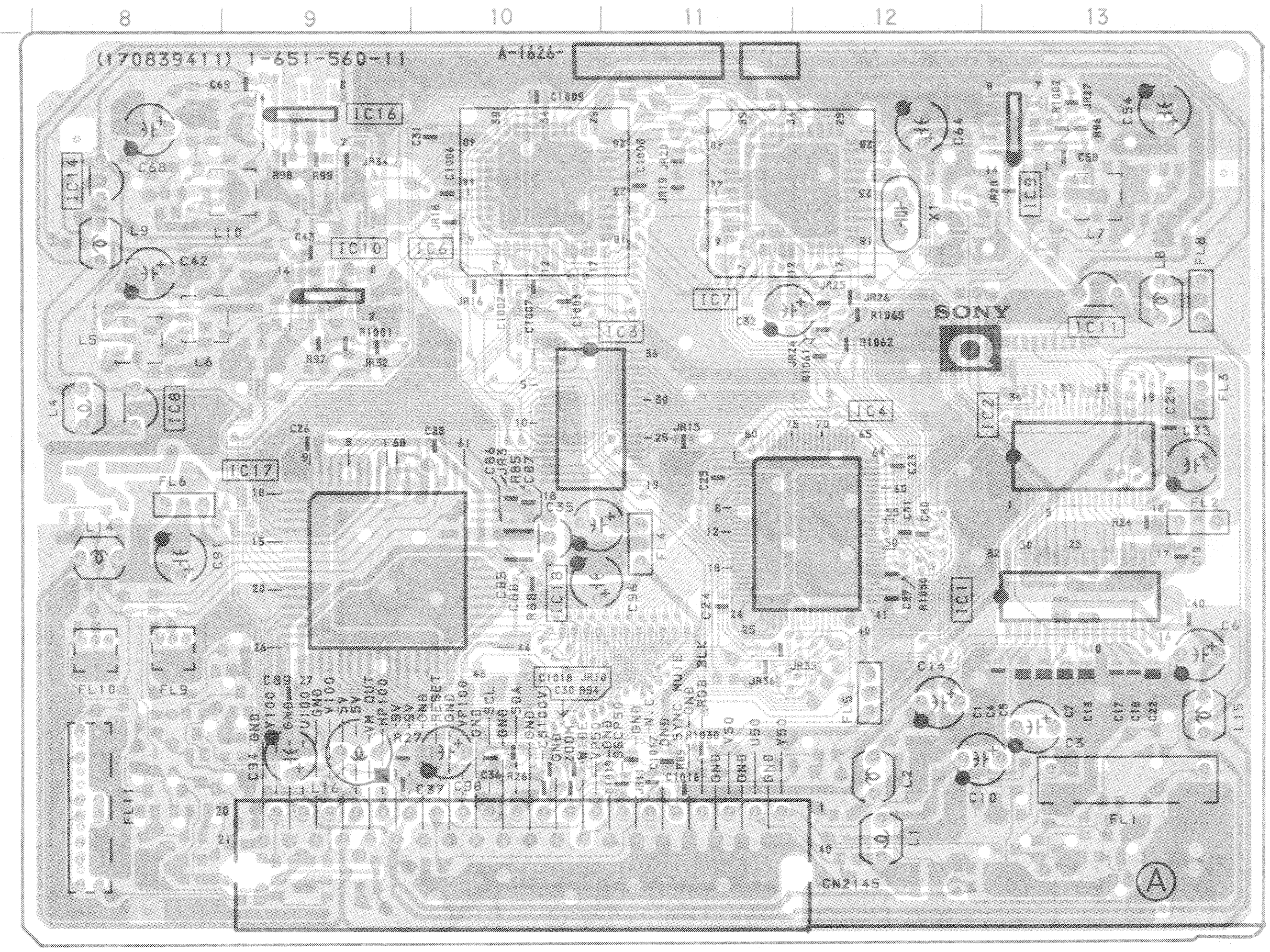
B-SS4873<AEP>-Q..

Q [BACKEND A/D CONVERTOR, NOISE REDUCTION, MICRO-COMPUTER, ECO-2 CONTROL]

— Q Board — <Conductor Side>


1-651-560-11 (170839411)
SONY
Q
B
CN2145
1
2
3
4
5
6
7
A
B
C
D
E

— Q Board — <Component Side>

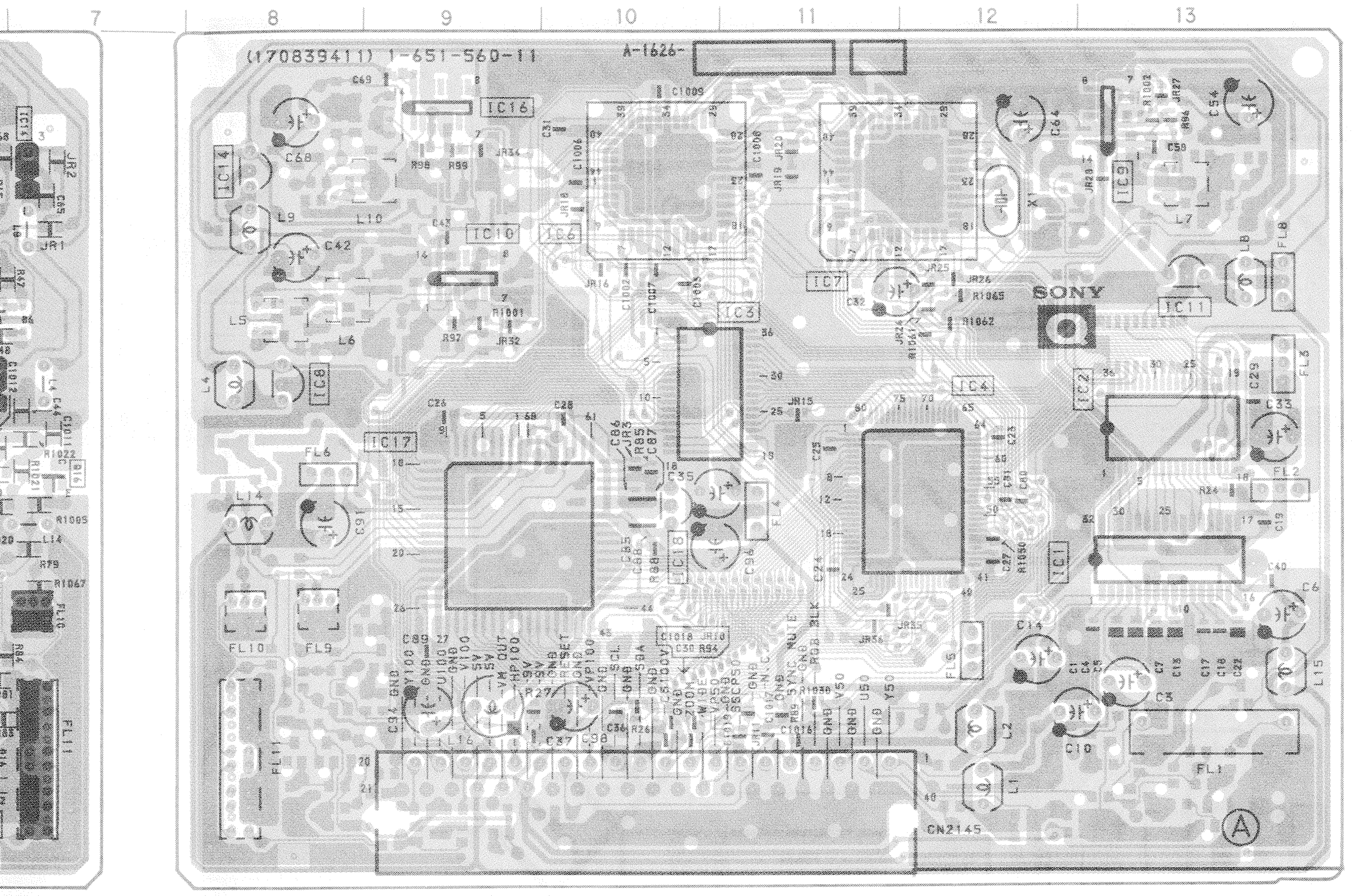

(170839411) 1-651-560-11
A-1626-
SONY
Q
A
CN2145
8
9
10
11
12
13

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

— Q Board -

IC	
IC1	C-13
IC2	C-13
IC3	B-10
IC4	C-12
IC6	A-10
IC7	A-12
IC8	B-6
IC9	A-13
IC10	B-9
IC11	B-1
IC12	B-2
IC13	B-5
IC14	A-7
IC15	B-6
IC16	A-9
IC17	C-9
IC18	C-4
IC19	B-5
IC20	B-6
IC21	B-2
IC22	A-2
TRANSISTOR	
Q1	E-1
Q2	E-2

— Q Board — <Component Side>


7
8
9
10
11
12
13
(170839411) 1-651-560-11
A-1626-
IC16
IC14
IC10
IC6
IC7
IC3
IC4
IC9
IC11
IC2
IC1
IC8
IC17
IC18
SONY
Q
FL10
FL9
FL11
FL6
FL4
FL5
FL8
FL2
FL1
L1
L2
L4
L5
L6
L7
L8
L9
L10
L14
L15
CN2145
A

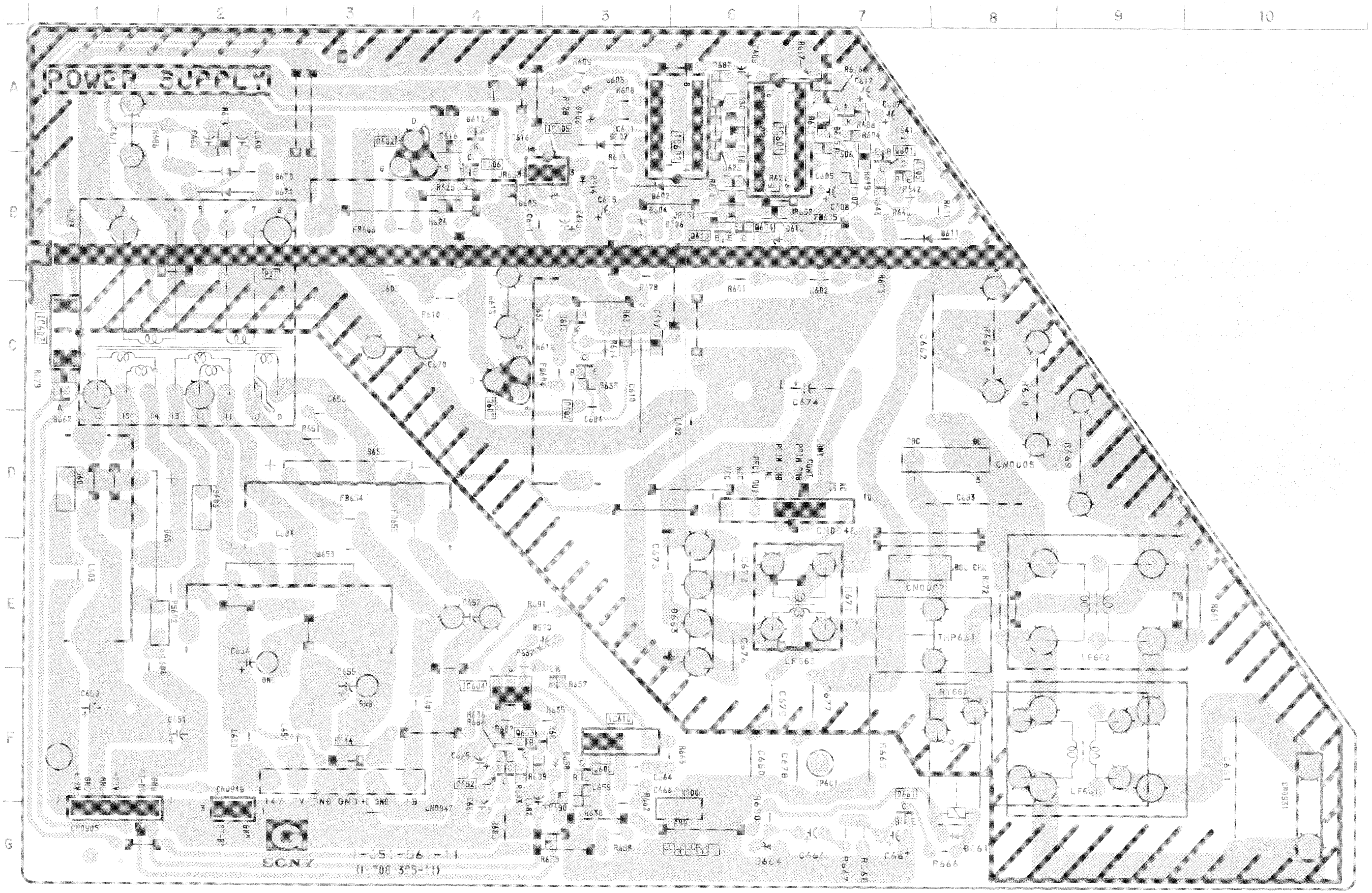
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

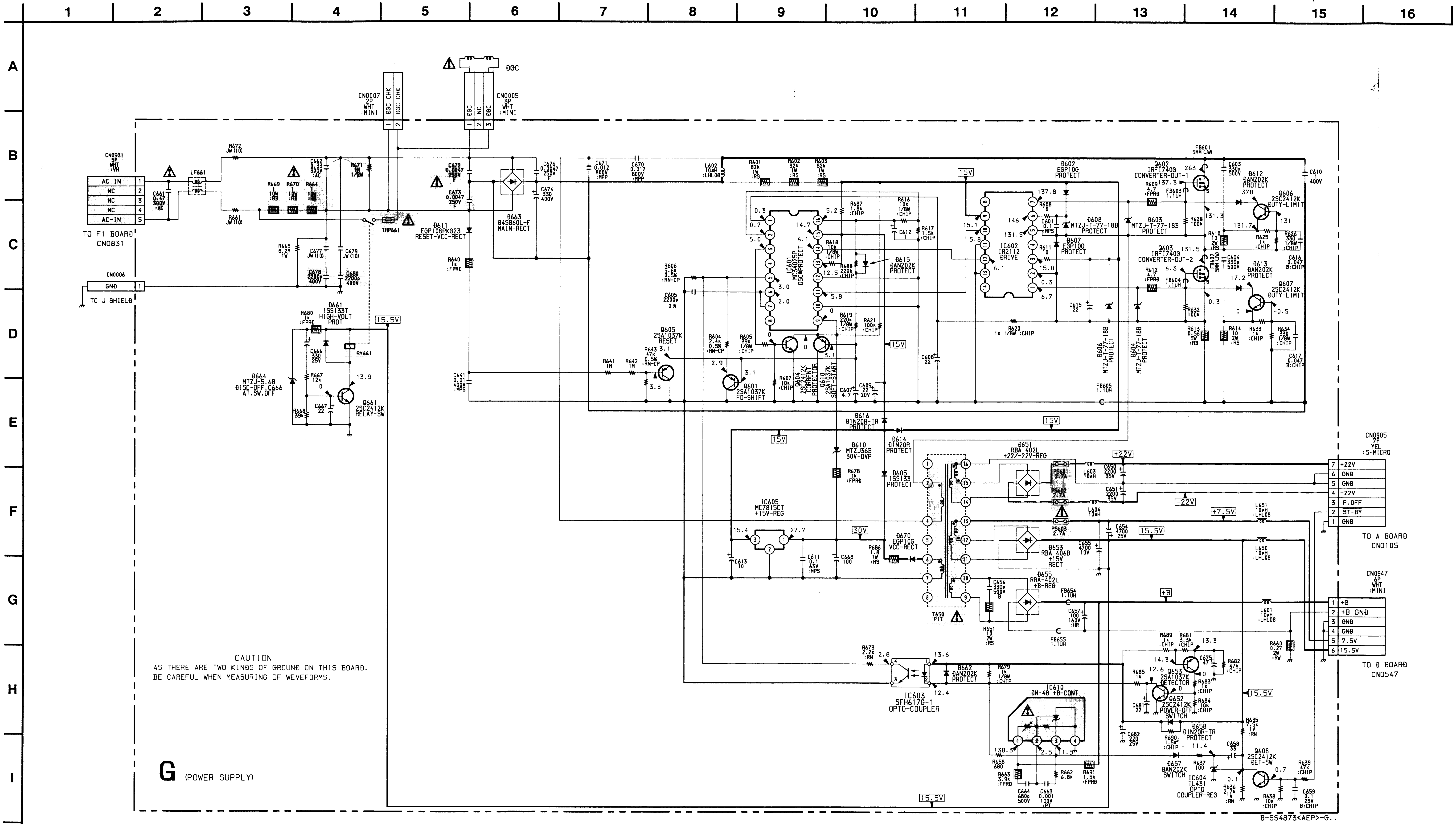
— Q Board —

IC	
IC1	C-13
IC2	C-13
IC3	B-10
IC4	C-12
IC6	A-10
IC7	A-12
IC8	B-6
IC9	A-13
IC10	B-9
IC11	B-1
IC12	B-2
IC13	B-5
IC14	A-7
IC15	B-6
IC16	A-9
IC17	C-9
IC18	C-4
IC19	B-5
IC20	B-6
IC21	B-2
IC22	A-2
TRANSISTOR	
Q1	E-1
Q2	E-2
Q8	B-6
Q9	B-5
Q10	A-2
A11	A-6
Q12	D-6
Q13	E-6
Q14	D-4
Q16	C-7
Q17	B-4
Q18	D-3
Q20	E-6
Q21	D-6
Q22	D-6
DIODE	
D3	B-6
D4	B-5
D5	B-6
D6	B-6
D8	A-1
D9	A-2
D10	A-6
D11	A-6
D12	A-5
D13	D-4
D15	D-6
D16	E-6

G [POWER SUPPLY]

— G Board —


POWER SUPPLY
1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
IC601
IC602
IC603
IC604
IC605
IC610
Q601
Q602
Q603
Q604
Q605
Q606
Q607
Q608
Q610
Q652
Q653
Q661
PIT
CN0005
CN0006
CN0007
CN0905
CN0931
CN0947
CN0948
CN0949
LF661
LF662
LF663
THP661
RY661
TP601
FB603
FB604
FB605
FB654
FB655
L602
L603
L604
L650
L651
L601
PS601
PS602
PS603
C674
C662
C683
C656
C684
C657
C654
C655
C650
C651
C670
C603
C610
C604
C616
C671
C661
VCC
NCC
RECT OUT
NC
PRIM GND
PRIM GND
CONT
CONT
AC
NC
+22V
GND
GND
-22V
ST-BY
GND
ST-BY
GND
14V
7V
GND
GND
+B
GND
+B
DGC CHK
SONY
1-651-561-11
(1-708-395-11)

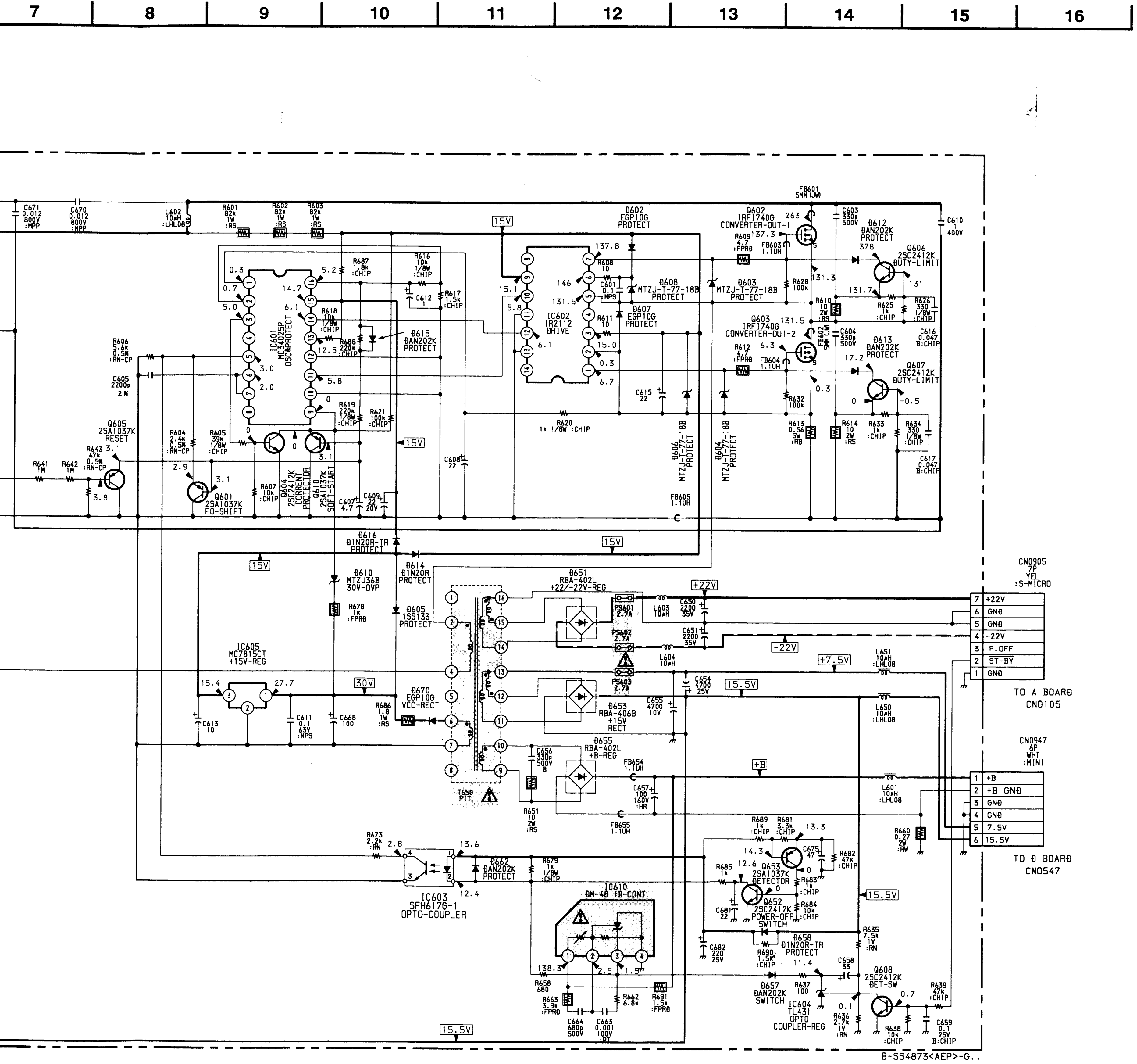

AC IN
AC-IN
TO F1 BOARD CN0831
TO J SHIELD
CN0007 2P WHT :MINI
DGC CHK
CN0005 3P WHT :MINI
DGC
LF661
THP661
RY661
D661 1SS133T HIGH-VOLT PROT
D664 MTZJ-5.6B DISC-OFF.C666 AT.SW.OFF
Q661 2SC2412K RELAY-SW
D663 D4SB60L-F MAIN-RECT
D611 EGP10GPKG23 RESET-VCC-RECT
IC601 MC44603P OSC&PROTECT
Q605 2SA1037K RESET
Q601 2SA1037K FD-SHIFT
Q604 2SC2412K CURRENT PROTECTOR
Q610 2SA1037K SOFT-START
D615 DAN202K PROTECT
IC602 IR2112 DRIVE
D602 EGP10G PROTECT
D607 EGP10G PROTECT
D608 MTZJ-T-77-18B PROTECT
D606 MTZJ-T-77-18B PROTECT
D604 MTZJ-T-77-18B PROTECT
D603 MTZJ-T-77-18B PROTECT
Q602 IRF1740G CONVERTER-OUT-1
Q603 IRF1740G CONVERTER-OUT-2
D612 DAN202K PROTECT
Q606 2SC2412K DUTY-LIMIT
D613 DAN202K PROTECT
Q607 2SC2412K DUTY-LIMIT
D616 D1N20R-TR PROTECT
D614 D1N20R PROTECT
D610 MTZJ36B 30V-OVP
D605 1SS133 PROTECT
IC605 MC7815CT +15V-REG
D670 EGP10G VCC-RECT
T650 PIT
D651 RBA-402L +22/-22V-REG
D653 RBA-406B +15V RECT
D655 RBA-402L +B-REG
CN0905 7P YEL :S-MICRO
+22V
GND
-22V
P.OFF
ST-BY
TO A BOARD CN0105
CN0947 6P WHT :MINI
+B
+B GND
7.5V
15.5V
TO D BOARD CN0547
IC603 SFH617G-1 OPTO-COUPLER
D662 DAN202K PROTECT
IC610 BM-48 +B-CONT
Q653 2SA1037K DETECTOR
Q652 2SC2412K POWER-OFF SWITCH
D658 D1N20R-TR PROTECT
D657 DAN202K SWITCH
IC604 TL431 OPTO COUPLER-REG
Q608 2SC2412K DET-SW
15.5V
15V
30V
B-SS4873<AEP>-G..

CAUTION
AS THERE ARE TWO KINDS OF GROUND ON THIS BOARD.
BE CAREFUL WHEN MEASURING OF WEVEFORMS.

G (POWER SUPPLY)

Sche

G


7
8
9
10
11
12
13
14
15
16
C671 0.012 800V :MPP
C670 0.012 800V :MPP
L602 10μH :LHL08
R601 82k 1W :RS
R602 82k 1W :RS
R603 82k 1W :RS
IC601 MC34025P OSC&PROTECT
R687 1.8k :CHIP
R616 10k 1/8W :CHIP
C612 1
R617 1.5k :CHIP
R618 10k 1/8W :CHIP
D615 DAN202K PROTECT
R688 220k :CHIP
R606 5.6k 0.5W :RN-CP
C605 2200p 2 N
R619 220k 1/8W :CHIP
R621 100k :CHIP
Q605 2SA1037K RESET
R604 2.4k 0.5W :RN-CP
R605 39k 1/8W :CHIP
R641 1M
R642 1M
R643 47k 0.5W :RN-CP
Q601 2SA1037K FO-SHIFT
R607 10k :CHIP
Q604 2SC2412K CURRENT PROTECTOR
Q610 2SA1037K SOFT-START
C607 4.7
C609 22 20V
C608 22
15V
D602 EGP10G PROTECT
IC602 IR2112 DRIVE
R608 10
C601 0.1 :MPS
D608 MTZJ-T-77-18B PROTECT
D607 EGP10G PROTECT
R611 10
R620 1k 1/8W :CHIP
C615 22
D606 MTZJ-T-77-18B PROTECT
D604 MTZJ-T-77-18B PROTECT
FB605 1.1UH
FB601 5MM (JW)
Q602 IRF1740G CONVERTER-OUT-1
R609 4.7 :FPRB
FB603 1.1UH
D603 MTZJ-T-77-18B PROTECT
R628 100k
Q603 IRF1740G CONVERTER-OUT-2
R612 4.7 :FPRB
FB604 1.1UH
FB602 5MM (JW)
R632 100k
R613 0.56 5W :RB
C603 330p 500V
D612 DAN202K PROTECT
Q606 2SC2412K DUTY-LIMIT
R610 10 2W :RS
R625 1k :CHIP
R626 330 1/8W :CHIP
C604 330p 500V
D613 DAN202K PROTECT
Q607 2SC2412K DUTY-LIMIT
R614 10 2W :RS
R633 1k :CHIP
R634 330 1/8W :CHIP
C610 1 400V
C616 0.047 B:CHIP
C617 0.047 B:CHIP
D616 D1N20R-TR PROTECT
D614 D1N20R PROTECT
D610 MTZJ36B 30V-OVP
R678 1k :FPRB
D605 1SS133 PROTECT
IC605 MC7815CT +15V-REG
C613 10
C611 0.1 63V :MPS
C668 100
30V
D670 EGP10G VCC-RECT
R686 1.8 1W :RS
T650 PIT
D651 RBA-402L +22/-22V-REG
PS601 2.7A
PS602 2.7A
PS603 2.7A
L603 10μH
C650 2200 35V
C651 2200 35V
L604 10μH
+22V
-22V
+7.5V
15.5V
C654 4700 25V
C655 4700 10V
D653 RBA-406B +15V RECT
D655 RBA-402L +B-REG
C656 330p 500V B
FB654 1.1UH
C657 100 160V :HR
R651 10 2W :RS
FB655 1.1UH
+B
L651 10μH :LHL08
L650 10μH :LHL08
L601 10μH :LHL08
R660 0.27 2W :RW
CN0905 7P YEL :S-MICRO
7 +22V
6 GND
5 GND
4 -22V
3 P.OFF
2 ST-BY
1 GND
TO A BOARD CN0105
CN0947 6P WHT :MINI
1 +B
2 +B GND
3 GND
4 GND
5 7.5V
6 15.5V
TO D BOARD CN0547
R673 2.2k :RN
IC603 SFH617G-1 OPTO-COUPLER
D662 DAN202K PROTECT
R679 1k 1/8W :CHIP
IC610 DM-48 +B-CONT
R658 680
R663 3.9k :FPRB
C664 680p 500V
C663 0.001 100V :PT
R662 6.8k
R691 1.5k :FPRB
R689 1k :CHIP
R681 3.3k :CHIP
C675 47
R682 47k :CHIP
R685 1k
Q653 2SA1037K DETECTOR
R683 1k :CHIP
C681 22
Q652 2SC2412K POWER-OFF SWITCH
R684 10k :CHIP
C682 220 25V
D658 D1N20R-TR PROTECT
R690 1.5k :CHIP
D657 DAN202K SWITCH
R637 100
IC604 TL431 OPTO COUPLER-REG
C658 33
R636 2.7k 1W :RN
Q608 2SC2412K DET-SW
R635 7.5k 1W :RN
R638 10k :CHIP
R639 47k :CHIP
C659 0.1 25V B:CHIP
B-SS4873<AEP>-G..

Schematic diagram

← G **board**

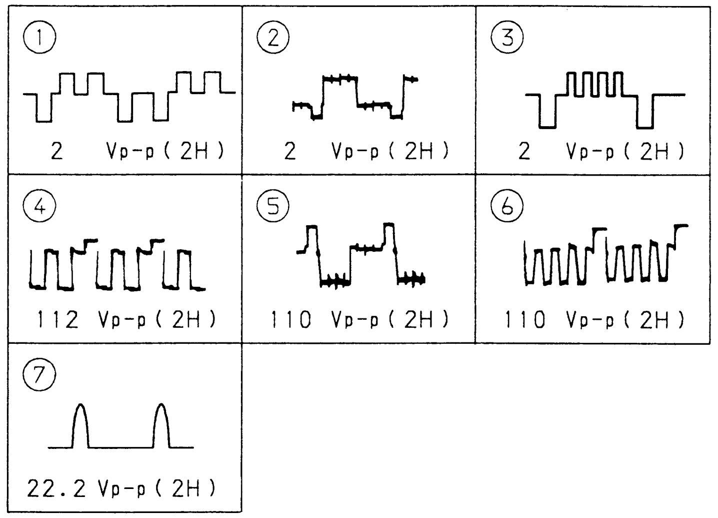
Schematic diagram

C **board** →

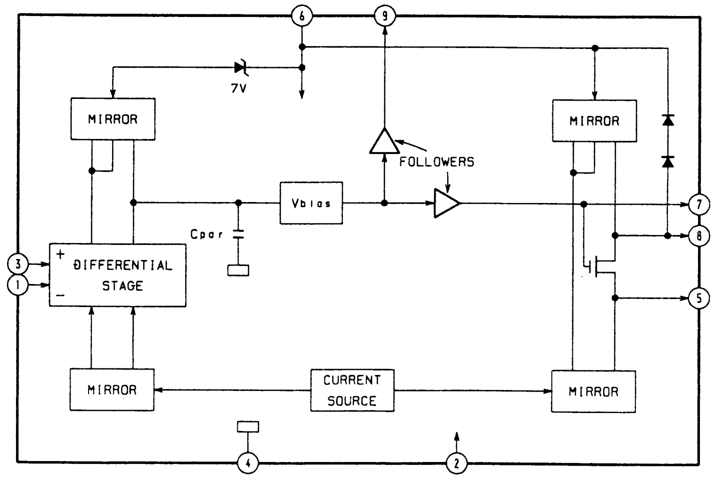
— C Board —

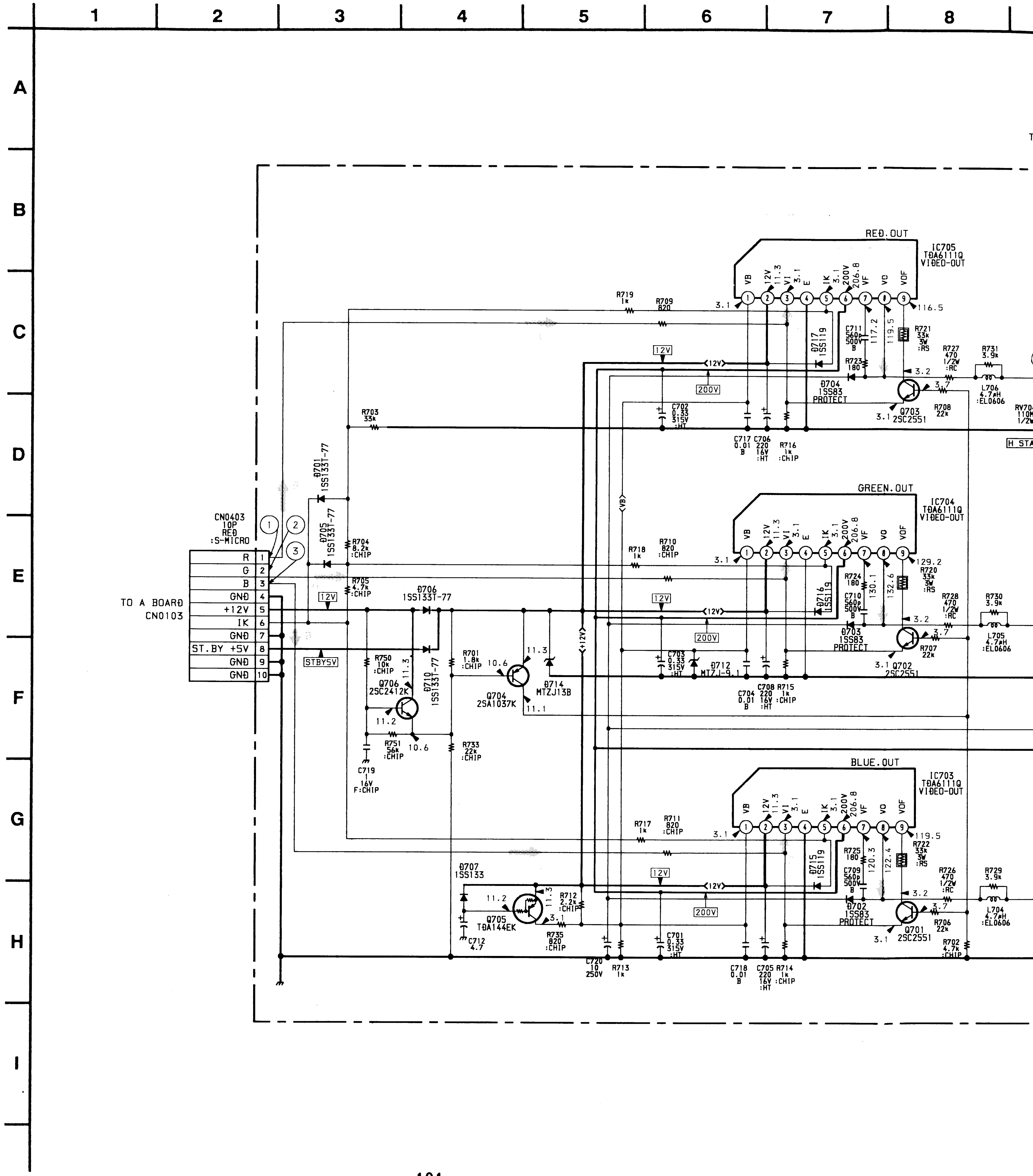
Ref. No.	Name	Function
IC703	TDA6111Q	VIDEO OUT (RED)
IC704	TDA6111Q	VIDEO OUT (GREEN)
IC705	TDA6111Q	VIDEO OUT (BLUE)
Q701	2SC2551	STANDBY SWITCH
Q702	2SC2551	STANDBY SWITCH
Q703	2SC2551	STANDBY SWITCH
Q704	2SA1037K	VOLTAGE MONITOR
Q705	TDA144EK	SWITCH ON MUTE
Q706	2SC2412K	SWITCH OFF DELAY
D701	1SS133T-77	IK (RED)
D702	1SS83	SWITCH
D703	1SS83	SWITCH
D704	1SS83	
D705	1SS133T-77	IK (GREEN)
D706	1SS133T-77	STANDBY SUPPLY
D707	1SS133T-77	SWITCH ON MUTE
D710	1SS133T-77	STANDBY SUPPLY
D712	MTZJ-9.1	PROTECT
D714	MTZJ13B	REF VOLTAGE
D715	1SS119	SWITCH
D716	1SS119	
D717	1SS119	

— C Board —



C BOARD IC703,704,705 TDA6111Q


⑥
⑨
7V
MIRROR
MIRROR
FOLLOWERS
Vbias
Cpar
DIFFERENTIAL STAGE
+
–
③
①
⑦
⑧
⑤
MIRROR
CURRENT SOURCE
MIRROR
④
②


1
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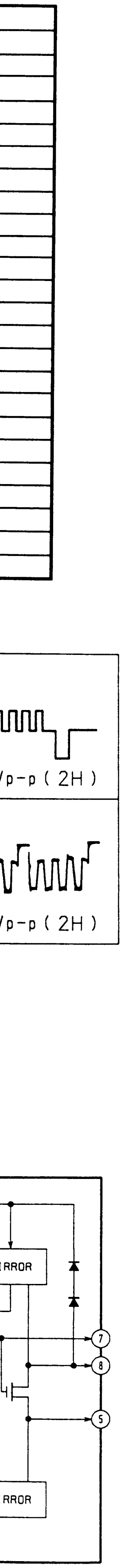
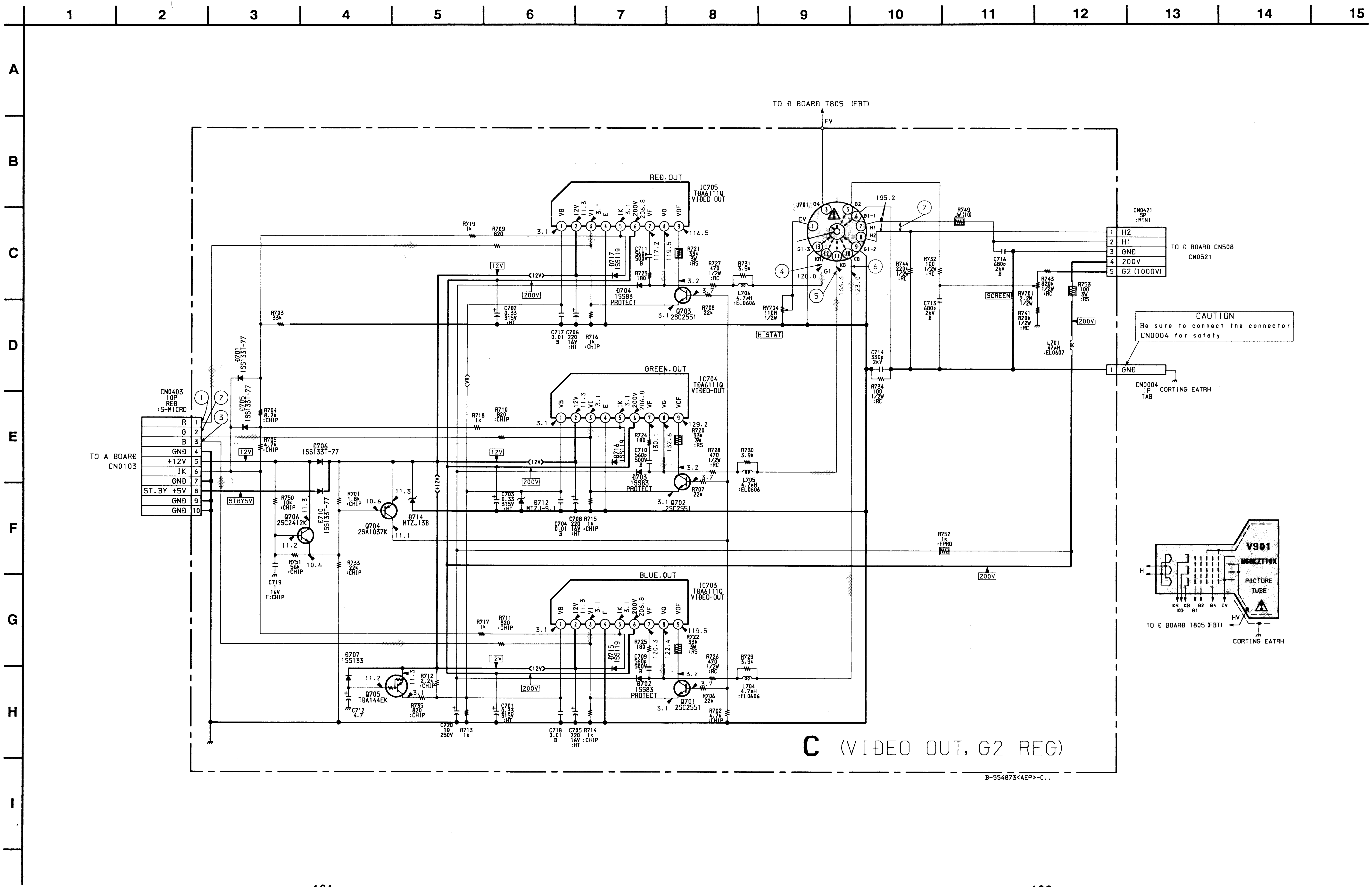
A
B
C
D
E
F
G
H
I
RED.OUT
IC705
TDA6111Q
VIDEO-OUT
GREEN.OUT
IC704
TDA6111Q
VIDEO-OUT
BLUE.OUT
IC703
TDA6111Q
VIDEO-OUT
VB
12V
11.3
VI
3.1
E
IK
3.1
200V
206.8
VF
VO
VOF
116.5
129.2
119.5
CN0403
10P
RED
:S-MICRO
TO A BOARD
CN0103
R
G
B
GND
+12V
IK
GND
ST.BY +5V
GND
GND
12V
STBY5V
200V
<12V>
<+12V>
<VB>
H STA
D701
1SS133T-77
D705
1SS133T-77
R703
33k
R704
8.2k
:CHIP
R705
4.7k
:CHIP
D706
1SS133T-77
D710
1SS133T-77
R750
10k
:CHIP
Q706
2SC2412K
11.3
11.2
10.6
R751
56k
:CHIP
C719
1
16V
F:CHIP
R733
22k
:CHIP
R701
1.8k
:CHIP
Q704
2SA1037K
11.1
D714
MTZJ13B
D707
1SS133
Q705
TDA144EK
C712
4.7
R712
2.2k
:CHIP
R735
820
:CHIP
C720
10
250V
R713
1k
R719
1k
R709
820
R718
1k
R710
820
:CHIP
R717
1k
R711
820
:CHIP
C702
0.33
315V
:HT
C703
0.33
315V
:HT
C701
0.33
315V
:HT
D712
MTZJ-9.1
C717
0.01
B
C706
220
16V
:HT
R716
1k
:CHIP
C704
0.01
B
C708
220
16V
:HT
R715
1k
:CHIP
C718
0.01
B
C705
220
16V
:HT
R714
1k
:CHIP
D717
1SS119
D716
1SS119
D715
1SS119
C711
560p
500V
B
C710
560p
500V
B
C709
560p
500V
B
R723
180
R724
180
R725
180
117.2
119.5
130.1
132.6
120.3
122.4
R721
33k
3W
:RS
R720
33k
3W
:RS
R722
33k
3W
:RS
D704
1SS83
PROTECT
D703
1SS83
PROTECT
D702
1SS83
PROTECT
Q703
2SC2551
Q702
2SC2551
Q701
2SC2551
3.2
3.7
3.1
R708
22k
R707
22k
R706
22k
R702
4.7k
:CHIP
R727
470
1/2W
:RC
R728
470
1/2W
:RC
R726
470
1/2W
:RC
R731
3.9k
R730
3.9k
R729
3.9k
L706
4.7μH
:EL0606
L705
4.7μH
:EL0606
L704
4.7μH
:EL0606



Vp-p (2H)
Vp-p (2H)
RROR
RROR



1
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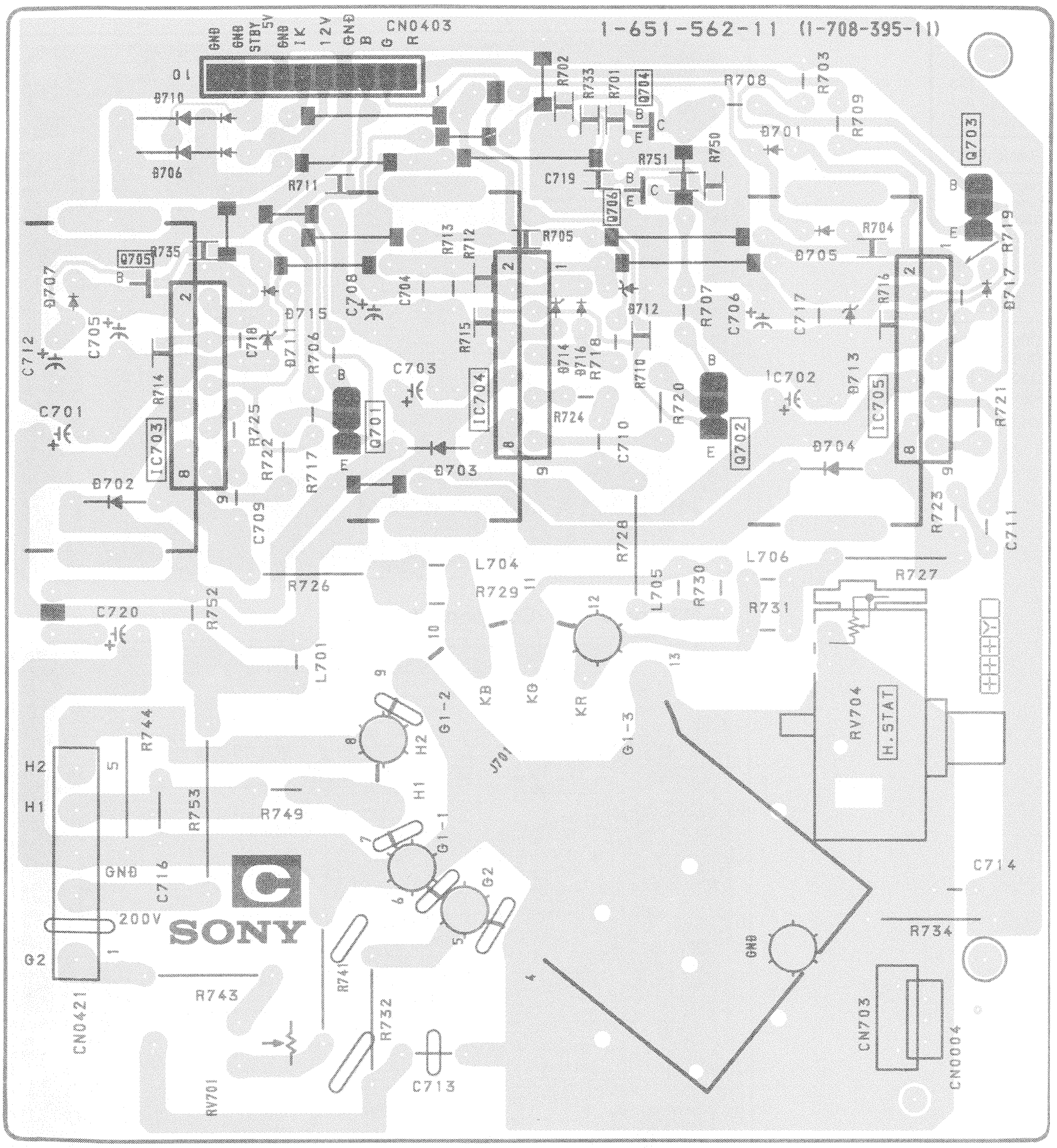
11
12
13
14
15
A
B
C
D
E
F
G
H
I
TO Ɖ BOARD T805 (FBT)
FV
RED.OUT
IC705
TDA6111Q
VIDEO-OUT
GREEN.OUT
IC704
TDA6111Q
VIDEO-OUT
BLUE.OUT
IC703
TDA6111Q
VIDEO-OUT
J701
195.2
R749
CN0421
5P
:MINI
H2
H1
GND
200V
G2 (1000V)
TO Ɖ BOARD CN508
CN0521
SCREEN
H STAT
CAUTION
Be sure to connect the connector CN0004 for safety
GND
CN0004
1P
TAB
CORTING EATRH
CN0403
10P
RED
:S-MICRO
R
G
B
GND
+12V
IK
GND
ST.BY +5V
GND
GND
TO A BOARD
CN0103
12V
200V
STBY5V
Q703
2SC2551
Q702
2SC2551
Q701
2SC2551
Q704
2SA1037K
Q705
TDA144EK
Q706
2SC2412K
D704
1SS83
PROTECT
D703
1SS83
PROTECT
D702
1SS83
PROTECT
D706
1SS133T-77
D707
1SS133
D714
MTZJ13B
D712
MTZJ-9.1
V901
M68KZT10X
PICTURE
TUBE
TO Ɖ BOARD T805 (FBT)
CORTING EATRH
C (VIDEO OUT, G2 REG)
B-SS4873<AEP>-C..

C [VIDEO OUT, G2 REG]

— C Board —

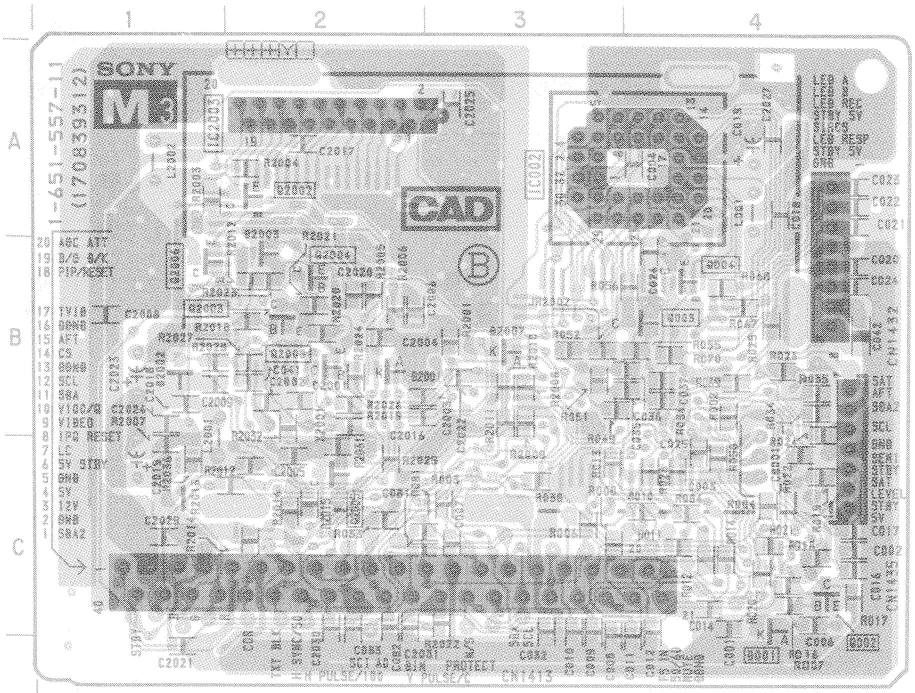

CN0403
GND
GND
STBY 5V
GND
IK
12V
GND
B
G
R
1-651-562-11 (1-708-395-11)
01
D710
D706
R711
R702
R733
R701
Q704
R708
R703
R709
D701
Q703
R751
R750
C719
Q706
R713
R712
R705
R704
D705
R719
D717
Q705
R735
D707
C705
C712
C701
R714
IC703
D715
C718
D711
R706
C708
C704
R715
IC704
D714
D716
R718
D712
R710
R707
C706
C717
R716
IC705
D713
C702
Q702
R720
R724
C710
Q701
C703
R725
R722
R717
D703
D702
C709
R728
R723
C711
R721
D704
L704
R729
L705
R730
L706
R727
R731
R726
C720
R752
L701
KB
KG
KR
G1-2
G1-3
J701
H2
H1
RV704
H.STAT
R744
R753
R749
GND
C716
200V
G2
CN0421
C
SONY
R743
R741
R732
RV701
C713
G1-1
G2
GND
C714
R734
CN703
CN0004

M3 [MICRO COMPUTER, MEGATEXT, D-RAM, ROM]

— M3 Board —

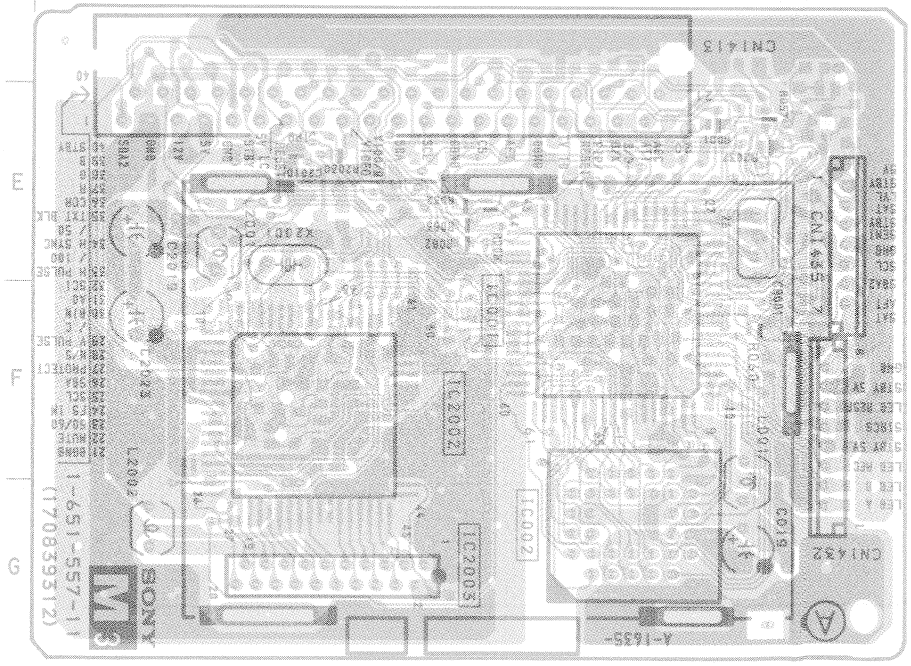
IC	
IC001	F-3
IC002	G-3
IC2002	A-3
IC2003	A-2
TRANSISTOR	
Q002	C-4
Q2002	A-2
Q2004	B-2
Q2005	C-2
Q2006	B-1
Q2008	B-2
DIODE	
D001	D-4
D2001	B-2
D2007	B-3

— M3 Board — <Conductor Side>

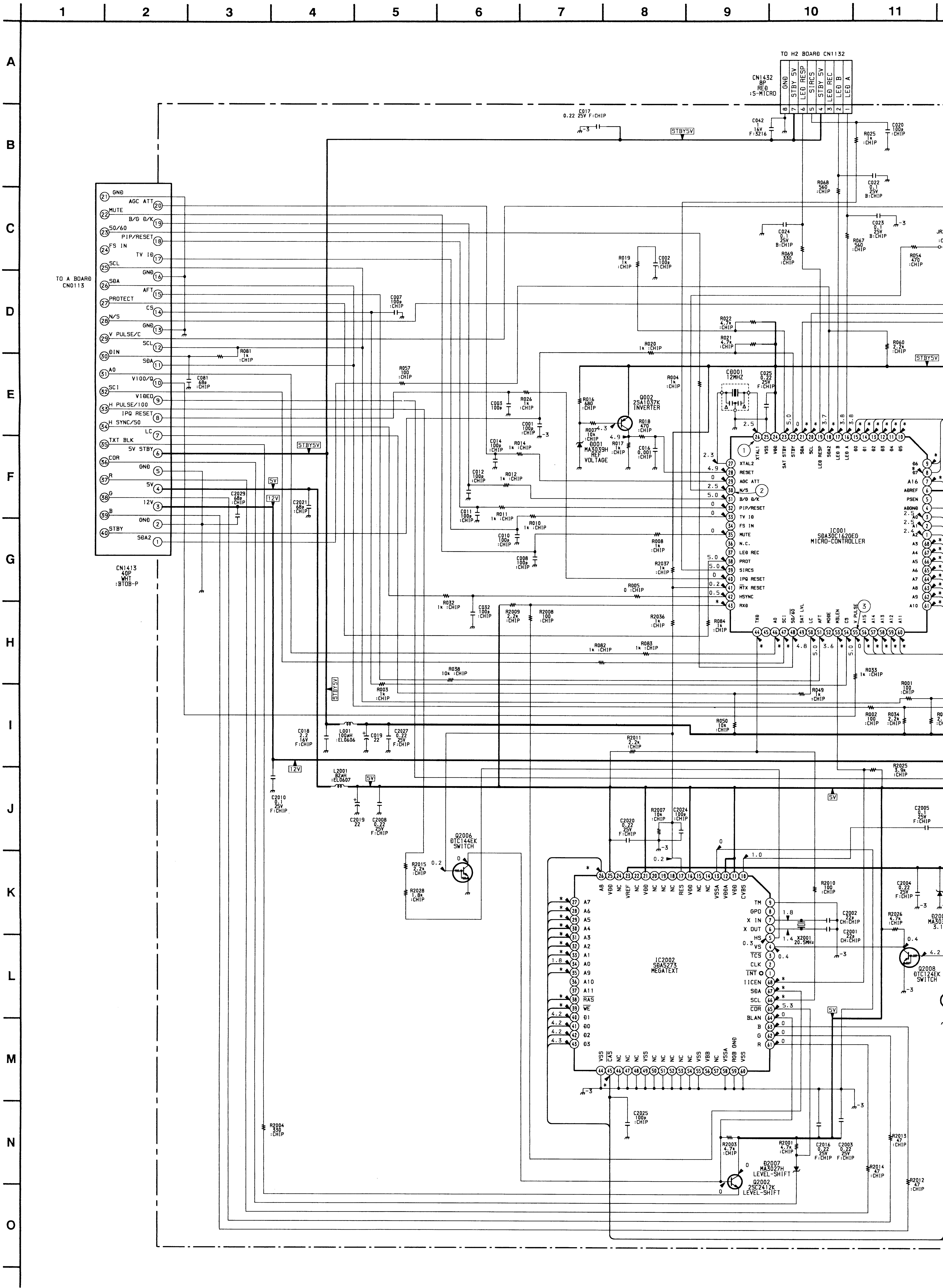

1
2
3
4
A
B
C
SONY
M3
CAD
B
1-651-557-11
(1708393 12)
IC2003
IC002
CN1432
CN1435
CN1413
20 AGC ATT
19 B/G B/K
18 PIP/RESET
17 TV1B
16 GND
15 AFT
14 CS
13 GND
12 SCL
11 SDA
10 V100/G
9 VIDEO
8 IPQ RESET
7 LC
6 5V STBY
5 GND
4 5V
3 12V
2 GND
1 SDA2
LED A
LED B
LED REC
STBY 5V
SIRCS
LED RESP
STBY 5V
GND

D

— M3 Board — <Component Side>


E
F
G
CN1413
CN1435
CN1432
IC001
IC2002
IC002
IC2003
X2001
SONY
M3
1-651-557-11
(1708393 12)
A-1635-
A

- ▨ : Pattern from the side which enables seeing.
- ░ : Pattern of the rear side.


TO H2 BOARD CN1132
CN1432 8P RED :S-MICRO
GND
STBY 5V
LED RESP
SIRCS
STBY 5V
LED REC
LED B
LED A
TO A BOARD CN0113
CN1413 40P WHT :BTOB-P
GND
AGC ATT
MUTE
B/G D/K
50/60
PIP/RESET
FS IN
TV ID
SCL
SDA
AFT
PROTECT
CS
N/S
V PULSE/C
DIN
A0
V100/Q
SC1
VIDEO
H PULSE/100
IPQ RESET
H SYNC/50
LC
TXT BLK
5V STBY
COR
R
5V
G
12V
B
STBY
SDA2
STBY5V
5V
12V
CB001 12MHZ
Q002 2SA1037K INVERTER
D001 MA3039H REF VOLTAGE
IC001 SDA30C162GEG MICRO-CONTROLLER
XTAL2
RESET
AGC ATT
N/S
B/G D/K
PIP/RESET
TV ID
FS IN
MUTE
N.C.
LED REC
PROT
SIRCS
IPQ RESET
MTX RESET
HSYNC
RXD
TXD
L001 100µH :EL0606
L2001 82µH :EL0607
Q2006 DTC144EK SWITCH
IC2002 SDA5273 MEGATEXT
X2001 20.5MHz
Q2008 DTC124EK SWITCH
D2007 MA3027H LEVEL-SHIFT
Q2002 2SC2412K LEVEL-SHIFT
1
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9
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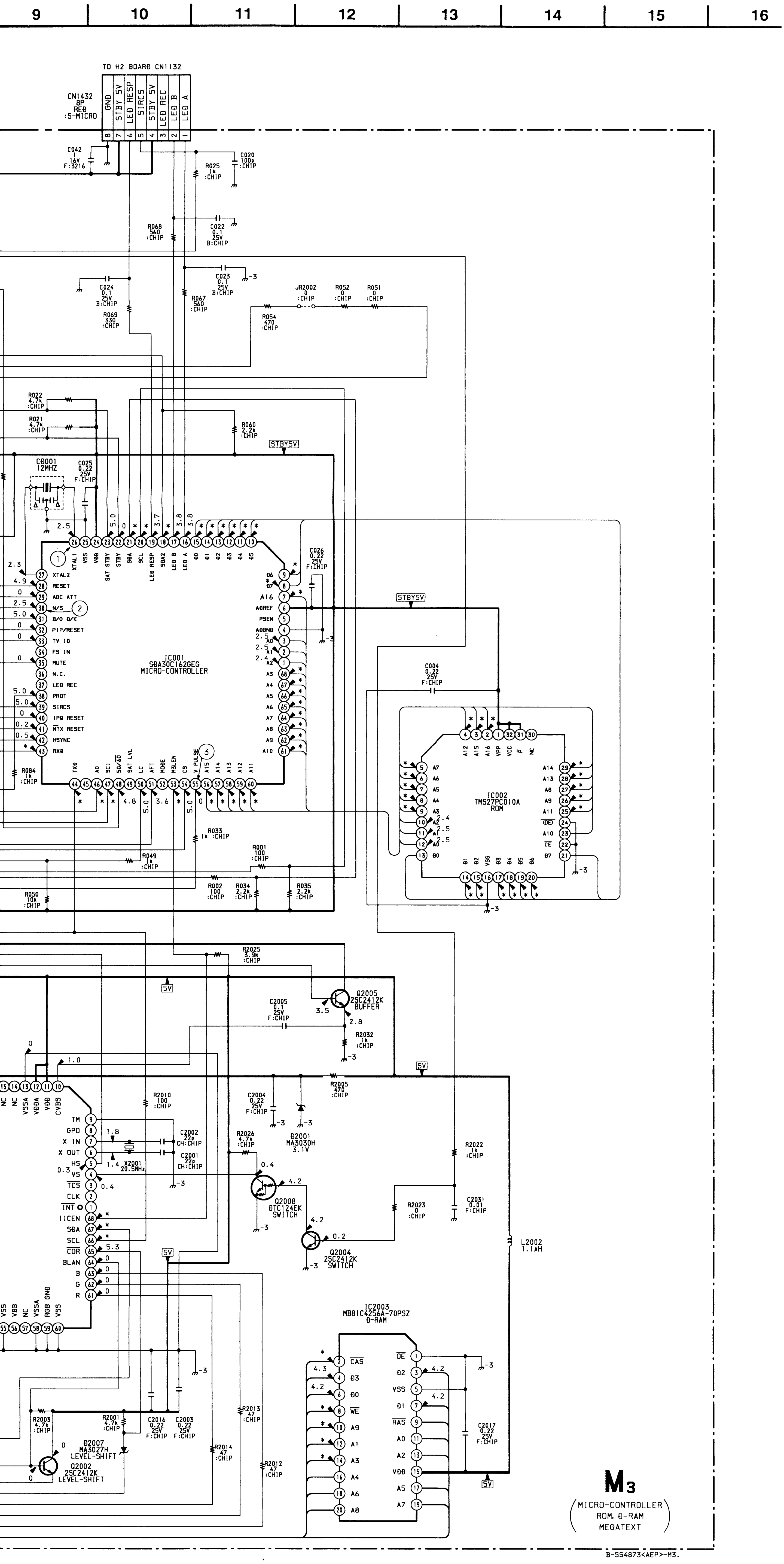
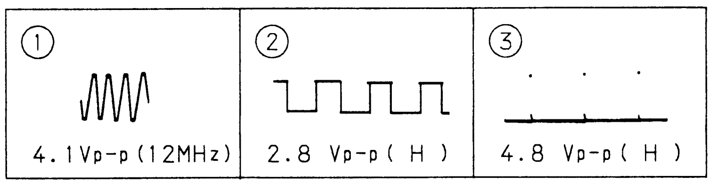
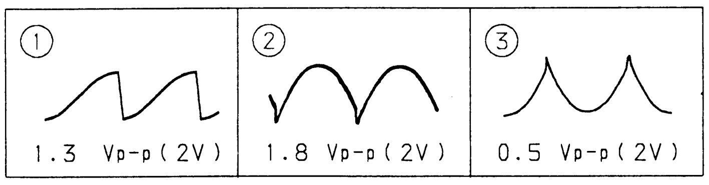
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

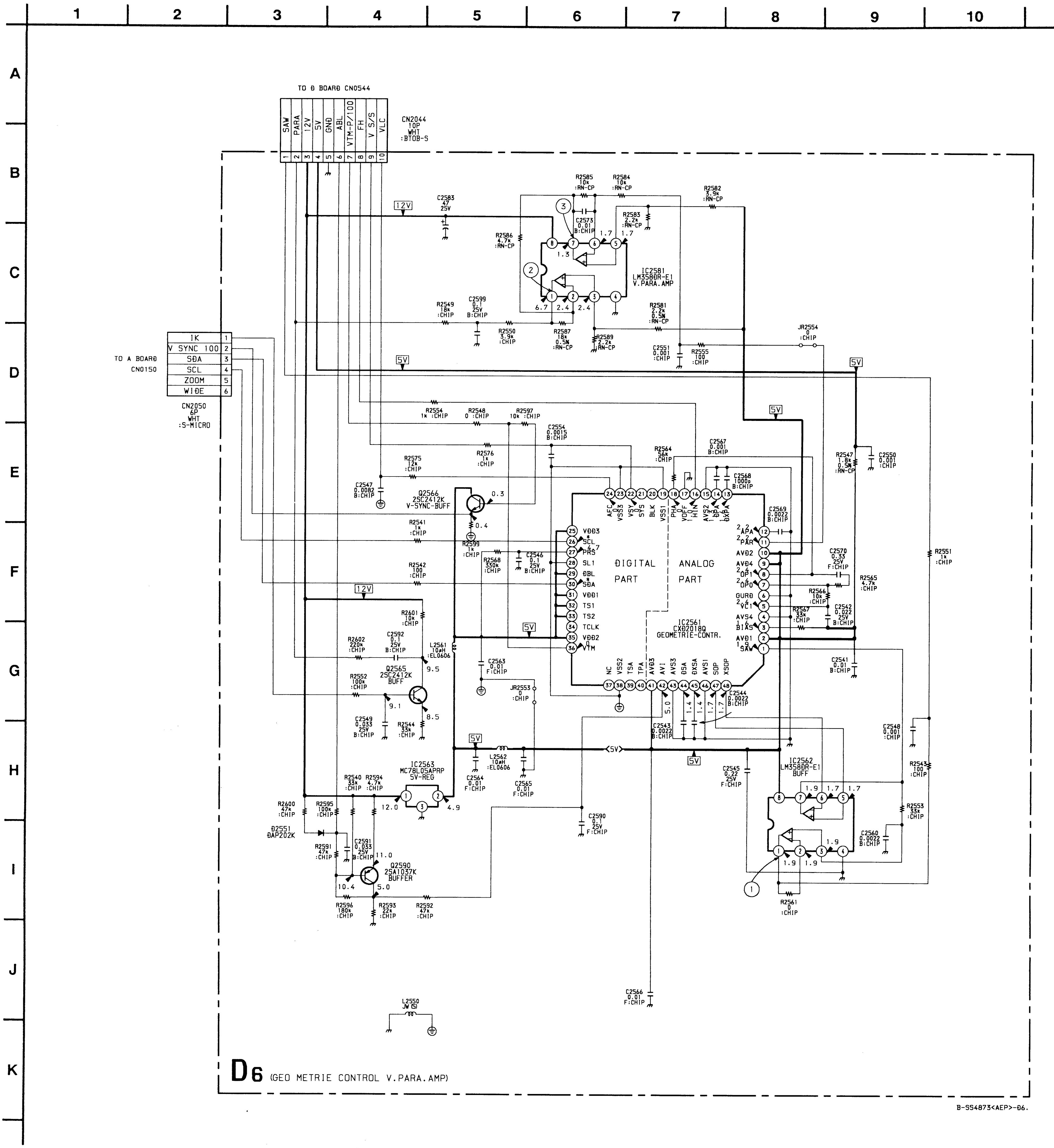

9
10
11
12
13
14
15
16
TO H2 BOARD CN1132
CN1432 8P RED :S-MICRO
GND
STBY 5V
LED RESP
SIRCS
STBY 5V
LED REC
LED B
LED A
C042 1 16V F:5216
R025 1k :CHIP
C020 100p :CHIP
R068 560 :CHIP
C022 0.1 25V B:CHIP
C024 0.1 25V B:CHIP
R069 330 :CHIP
C023 0.1 25V B:CHIP
R067 560 :CHIP
JR2002 0 :CHIP
R052 0 :CHIP
R051 0 :CHIP
R054 470 :CHIP
R022 4.7k :CHIP
R021 4.7k :CHIP
R060 2.2k :CHIP
STBY5V
CB001 12MHZ
C025 0.22 25V F:CHIP
C026 0.22 25V F:CHIP
IC001 SDA30C162GEG MICRO-CONTROLLER
XTAL2
RESET
AOC ATT
N/S
B/D O/K
PIP/RESET
TV ID
FS IN
MUTE
N.C.
LED REC
PROT
SIRCS
IPQ RESET
RTX RESET
HSYNC
RXD
R084 1k :CHIP
R033 1k :CHIP
R049 1k :CHIP
R001 100 :CHIP
R002 100 :CHIP
R034 2.2k :CHIP
R035 2.2k :CHIP
R050 10k :CHIP
C004 0.22 25V F:CHIP
IC002 TMS27PC010A ROM
R2025 3.9k :CHIP
Q2005 2SC2412K BUFFER
C2005 0.1 25V F:CHIP
R2032 1k :CHIP
5V
R2010 100 :CHIP
R2005 470 :CHIP
C2004 0.22 25V F:CHIP
D2001 MA3030H 3.1V
R2026 4.7k :CHIP
C2002 22p CH:CHIP
C2001 22p CH:CHIP
X2001 20.5MHz
Q2008 DTC124EK SWITCH
Q2004 2SC2412K SWITCH
R2022 1k :CHIP
R2023 0 :CHIP
C2031 0.01 F:CHIP
L2002 1.1µH
IC2003 MB81C4256A-70PSZ D-RAM
C2017 0.22 25V F:CHIP
R2003 4.7k :CHIP
R2001 4.7k :CHIP
C2016 0.22 25V F:CHIP
C2003 0.22 25V F:CHIP
R2013 47 :CHIP
R2014 47 :CHIP
R2012 47 :CHIP
D2007 MA3027H LEVEL-SHIFT
Q2002 2SC2412K LEVEL-SHIFT
M3
(MICRO-CONTROLLER ROM, D-RAM MEGATEXT)
B-SS4873<AEP>-M3.

M3 BOARD


①
4.1Vp-p(12MHz)
②
2.8 Vp-p(H)
③
4.8 Vp-p(H)

— D6 Board —





1
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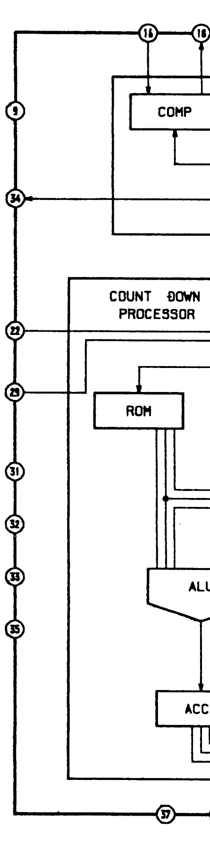
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
TO B BOARD CN0544
SAW
PARA
12V
5V
GND
ABL
VTM-P/100
FH
V S/S
VLC
CN2044
10P
WHT
:BTOB-S
TO A BOARD
CN0150
1K
V SYNC 100
SDA
SCL
ZOOM
WIDE
CN2050
6P
WHT
:S-MICRO
IC2581
LM358DR-E1
V.PARA.AMP
IC2561
CXD2018Q
GEOMETRIE-CONTR.
DIGITAL PART
ANALOG PART
IC2562
LM358DR-E1
BUFF
IC2563
MC78L05APRP
5V-REG
Q2566
2SC2412K
V-SYNC-BUFF
Q2565
2SC2412K
BUFF
Q2590
2SA1037K
BUFFER
D2551
DAP202K
L2561
10uH
:EL0606
L2562
10uH
:EL0606
L2550
JW (5)
JR2553
JR2554
12V
5V

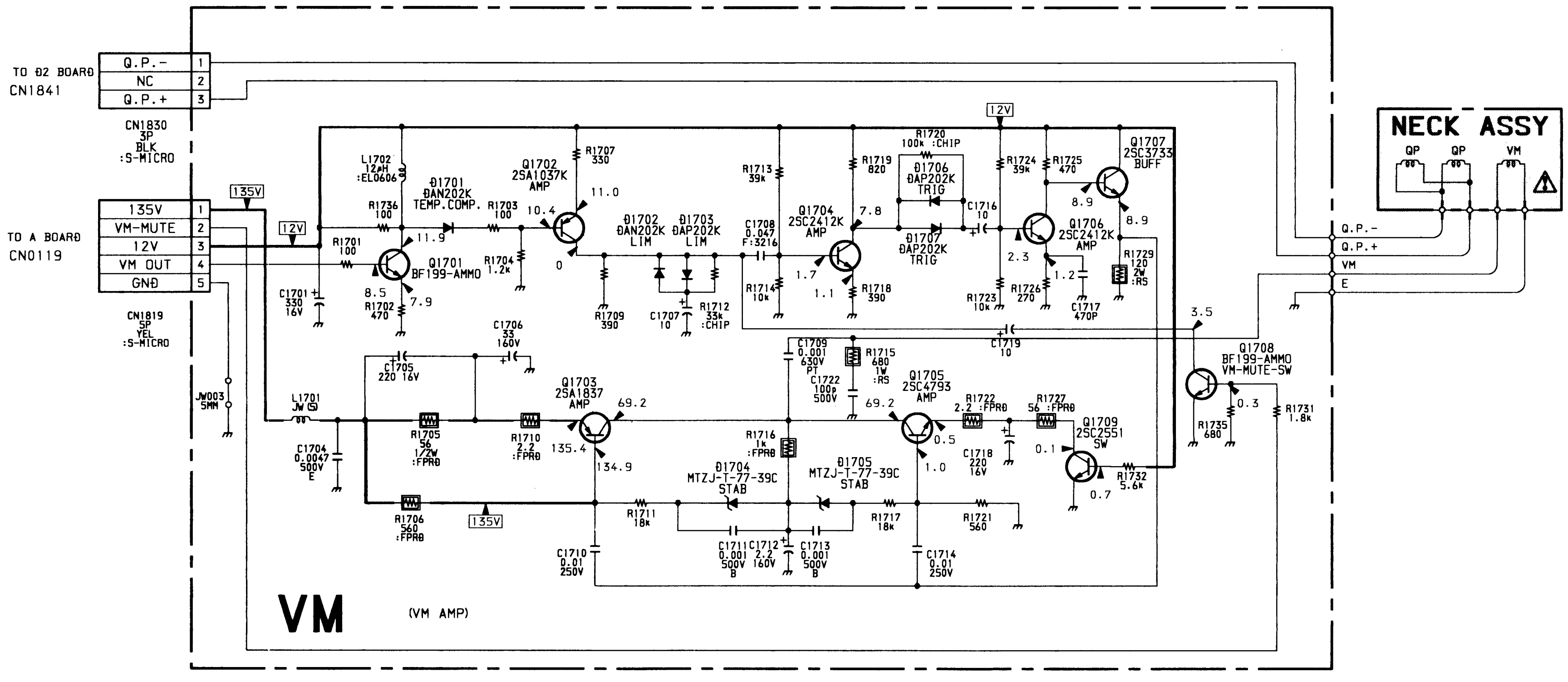
D6 (GEO METRIE CONTROL V.PARA.AMP)

B-SS4873<AEP>-06.



D6 BOARD IC2
COMP
COUNT DOWN
PROCESSOR
ROM
ALU
ACC

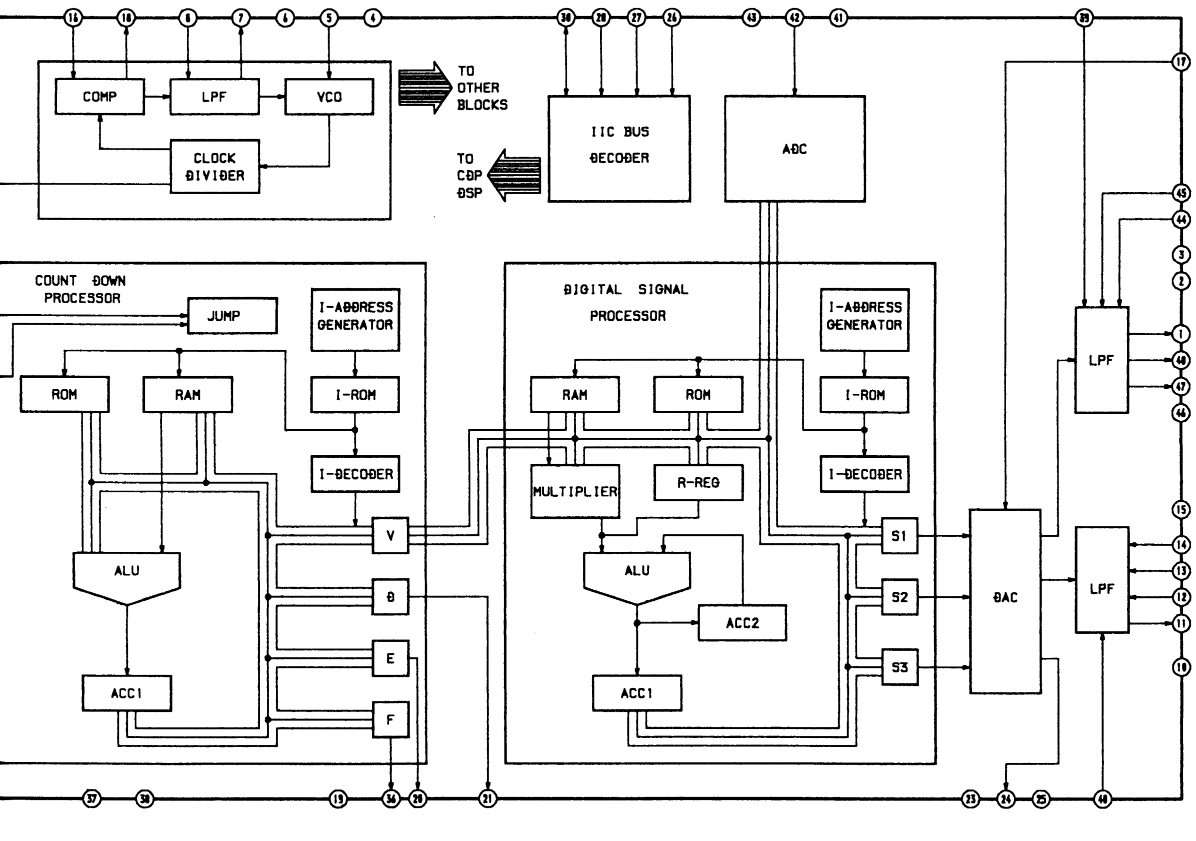
12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22



TO B2 BOARD CN1841
Q.P.-
NC
Q.P.+
CN1830 3P BLK :S-MICRO
TO A BOARD CN0119
135V
VM-MUTE
12V
VM OUT
GND
CN1819 5P YEL :S-MICRO
JW003 5MM
12V
135V
L1702 12μH :EL0606
D1701 DAN202K TEMP.COMP.
R1736 100
R1701 100
Q1701 BF199-AMMO
R1702 470
C1701 330 16V
R1703 100
R1704 1.2k
Q1702 2SA1037K AMP
R1707 330
D1702 DAN202K LIM
D1703 DAP202K LIM
R1709 390
C1707 10
R1712 33k :CHIP
R1713 39k
C1708 0.047 F:3216
R1714 10k
Q1704 2SC2412K AMP
R1719 820
R1718 390
R1720 100k :CHIP
D1706 DAP202K TRIG
D1707 DAP202K TRIG
C1716 10
R1724 39k
R1725 470
Q1706 2SC2412K AMP
Q1707 2SC3733 BUFF
R1723 10k
R1726 270
C1717 470P
R1729 120 2W :RS
C1719 10
Q1708 BF199-AMMO VM-MUTE-SW
R1735 680
R1731 1.8k
L1701 JW
C1704 0.0047 500V E
C1705 220 16V
C1706 33 160V
R1705 56 1/2W :FPRB
R1710 2.2 :FPRB
R1706 560 :FPRB
Q1703 2SA1837 AMP
R1711 18k
C1710 0.01 250V
C1709 0.001 630V PT
C1722 100p 500V
R1715 680 1W :RS
R1716 1k :FPRB
D1704 MTZJ-T-77-39C STAB
C1711 0.001 500V B
C1712 2.2 160V
C1713 0.001 500V B
Q1705 2SC4793 AMP
D1705 MTZJ-T-77-39C STAB
R1717 18k
C1714 0.01 250V
R1722 2.2 :FPRB
R1727 56 :FPRB
C1718 220 16V
R1721 560
Q1709 2SC2551 SW
R1732 5.6k
11.9
10.4
11.0
0
8.5
7.9
7.8
1.7
1.1
8.9
8.9
2.3
1.2
8.9
3.5
0.3
69.2
135.4
134.9
69.2
0.5
1.0
0.1
0.7
NECK ASSY
QP
QP
VM
Q.P.-
Q.P.+
VM
E
VM
(VM AMP)

B-SS4873<AEP>-VM.

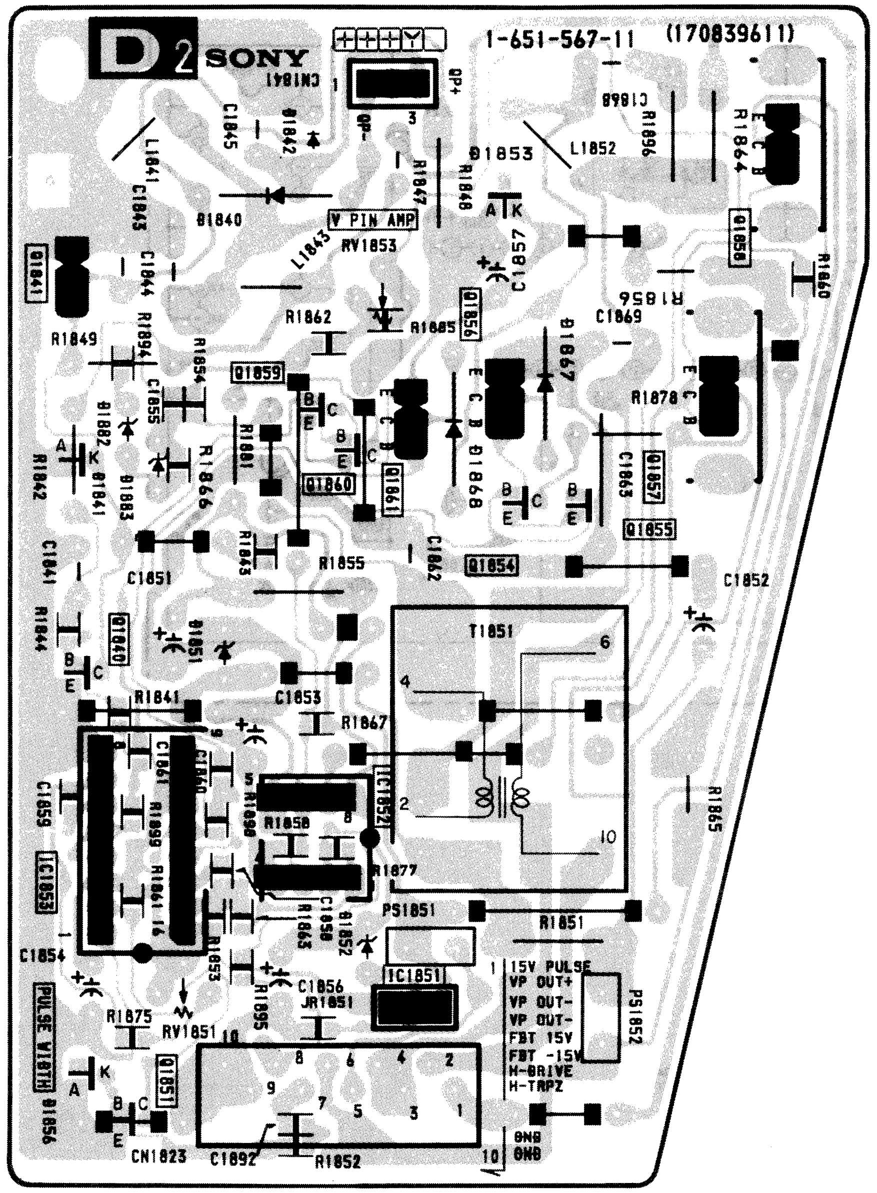
BOARD IC2561 CXD2018Q

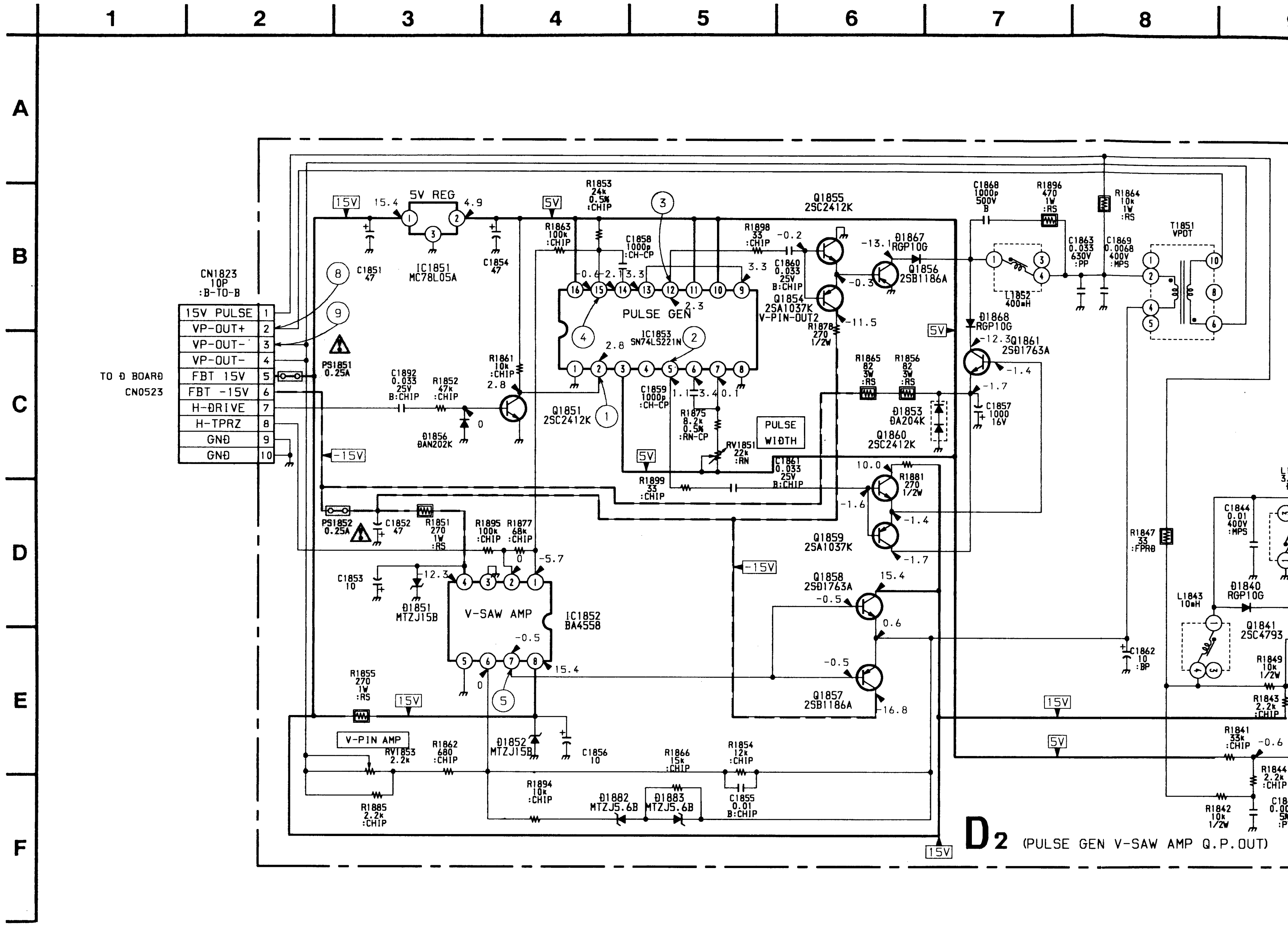


COMP
LPF
VCO
CLOCK DIVIDER
TO OTHER BLOCKS
TO CDP DSP
IIC BUS DECODER
ADC
COUNT DOWN PROCESSOR
JUMP
I-ADDRESS GENERATOR
ROM
RAM
I-ROM
I-DECODER
ALU
ACC1
V
D
E
F
DIGITAL SIGNAL PROCESSOR
RAM
ROM
I-ADDRESS GENERATOR
I-ROM
MULTIPLIER
R-REG
I-DECODER
ALU
ACC2
ACC1
S1
S2
S3
DAC
LPF
LPF

D2 [Q.P DRIVE, Q.P. OUT, V PIN DRIVE, V-PIN OUT]

— D2 Board —


D2 SONY
1-651-567-11 (170839611)
CN1841
QP+
QP-
Q1853
L1852
R1864
V PIN AMP
RV1853
C1857
R1856
Q1858
R1860
R1862
R1865
C1869
Q1867
Q1856
R1849
R1878
Q1859
Q1860
Q1861
Q1868
Q1857
Q1855
Q1854
C1851
C1852
T1851
C1853
R1867
IC1852
R1858
R1877
PS1851
R1851
IC1851
C1856
JR1851
R1875
RV1851
PULSE WIDTH
Q1851
CN1823
C1892
R1852
15V PULSE
VP OUT+
VP OUT-
VP OUT-
FBT 15V
FBT -15V
H-DRIVE
H-TRPZ
GND
GND
PS1852


1
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7
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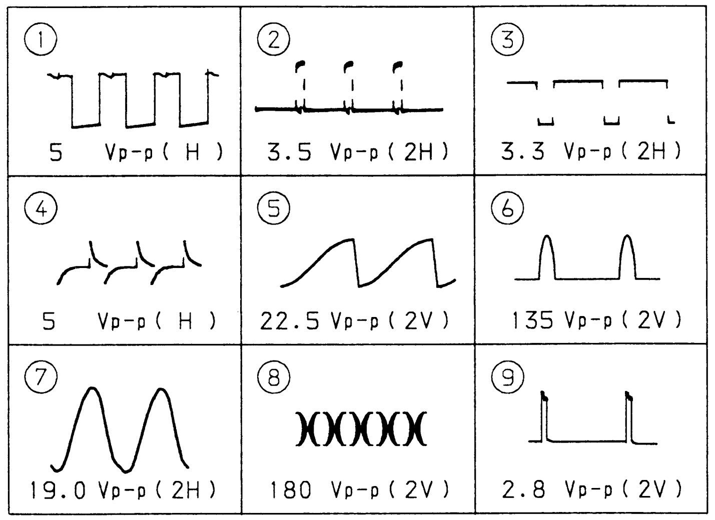
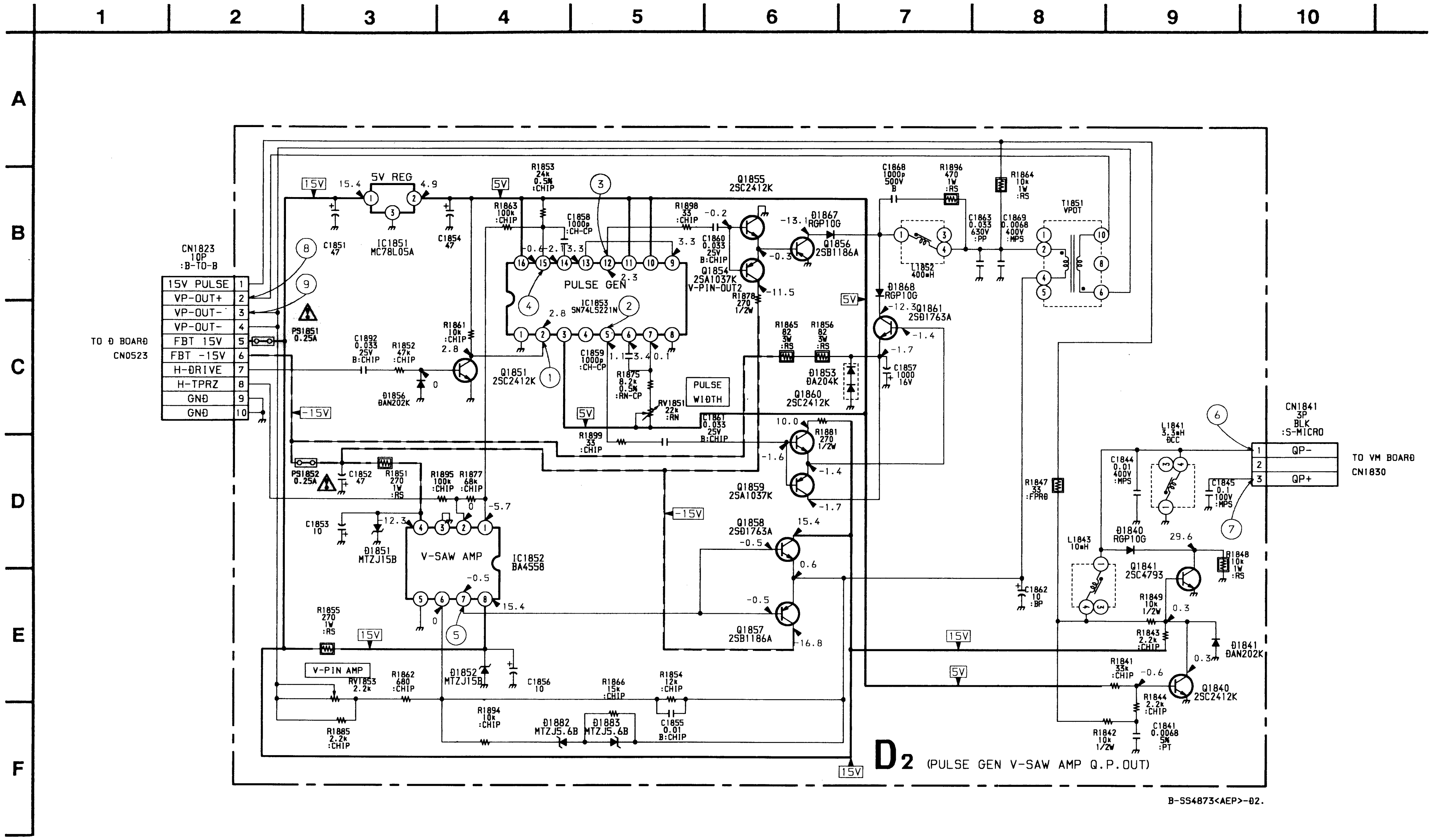
A
B
C
D
E
F
CN1823 10P :B-TO-B
15V PULSE
VP-OUT+
VP-OUT-
VP-OUT-
FBT 15V
FBT -15V
H-DRIVE
H-TPRZ
GND
GND
TO Ð BOARD CN0523
5V REG
IC1851 MC78L05A
PS1851 0.25A
PS1852 0.25A
PULSE GEN
IC1853 SN74LS221N
Q1851 2SC2412K
Q1855 2SC2412K
Q1854 2SA1037K V-PIN-OUT2
Q1867 RGP10G
Q1856 2SB1186A
L1852 400mH
T1851 VPOT
Q1868 RGP10G
Q1861 2SD1763A
Q1853 DAZ04K
Q1860 2SC2412K
PULSE WIDTH
RV1851 22k :RN
Q1859 2SA1037K
Q1858 2SD1763A
Q1857 2SB1186A
V-SAW AMP
IC1852 BA4558
D1851 MTZJ15B
D1852 MTZJ15B
D1882 MTZJ5.6B
D1883 MTZJ5.6B
V-PIN AMP
RV1853 2.2k
D1840 RGP10G
Q1841 2SC4793
L1843 10mH
D2 (PULSE GEN V-SAW AMP Q.P.OUT)

— D2 Board —




1
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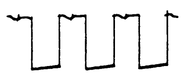
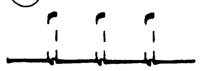
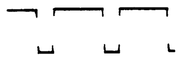
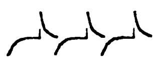
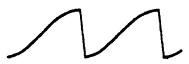
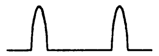
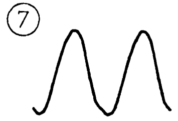
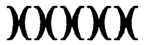
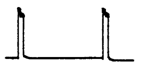
9
10
A
B
C
D
E
F
CN1823 10P :B-TO-B
15V PULSE
VP-OUT+
VP-OUT-
VP-OUT-
FBT 15V
FBT -15V
H-DRIVE
H-TPRZ
GND
GND
TO D BOARD CN0523
PS1851 0.25A
PS1852 0.25A
5V REG
IC1851 MC78L05A
C1851 47
C1854 47
PULSE GEN
IC1853 SN74LS221N
Q1851 2SC2412K
D1856 DAN202K
Q1855 2SC2412K
Q1854 2SA1037K
D1867 RGP10G
Q1856 2SB1186A
D1868 RGP10G
Q1861 2SD1763A
L1852 400mH
T1851 VPOT
PULSE WIDTH
RV1851 22k :RN
D1853 DA204K
Q1860 2SC2412K
Q1859 2SA1037K
Q1858 2SD1763A
Q1857 2SB1186A
V-SAW AMP
IC1852 BA4558
D1851 MTZJ15B
D1852 MTZJ15B
V-PIN AMP
RV1853 2.2k
D1882 MTZJ5.6B
D1883 MTZJ5.6B
CN1841 3P BLK :S-MICRO
QP-
QP+
TO VM BOARD CN1830
L1841 3.3mH
L1843 10mH
D1840 RGP10G
Q1841 2SC4793
Q1840 2SC2412K
D1841 DAN202K
D2 (PULSE GEN V-SAW AMP Q.P.OUT)
B-SS4873<AEP>-02.

— D2 Board —

Ref. No.	Name	Function
IC1851	MC78L05A	5V REG
IC1852	BA4558	
IC1853	SN74LS221N	
Q1840	2SC2412K	Q.P. DRIVE
Q1841	2SC4793	Q.P. OUT
Q1851	2SC2412K	INVERTER
Q1854	2SA1037K	V PIN DRIVE 2
Q1855	2SC2412K	V PIN DRIVE 1
Q1856	2SB1186A	V PIN OUT 2
Q1857	2SB1186A	VCC OUT 2
Q1858	2SD1763A	VCC OUT 1
Q1859	2SA1037K	V PIN DRIVE 3
Q1860	2SC2412K	V PIN DRIVE 4
Q1861	2SD1763	V PIN OUT 1
D1840	RGP10G	SWITCH
D1841	DAN202K	PROTECT
D1851	MTZJ15B	–12V REG
D1852	MTZJ15B	+12V REG
D1853	DA204K	LEVEL SHIFT
D1856	DAN202K	PROTECTOR
D1867	RGP10G	V PIN SWITCH 1
D1868	RGP10G	V PIN SWITCH 2
D1882	MTZJ5.6B	S CORRECTION 1
D1883	MTZJ5.6B	S CORRECTION 2

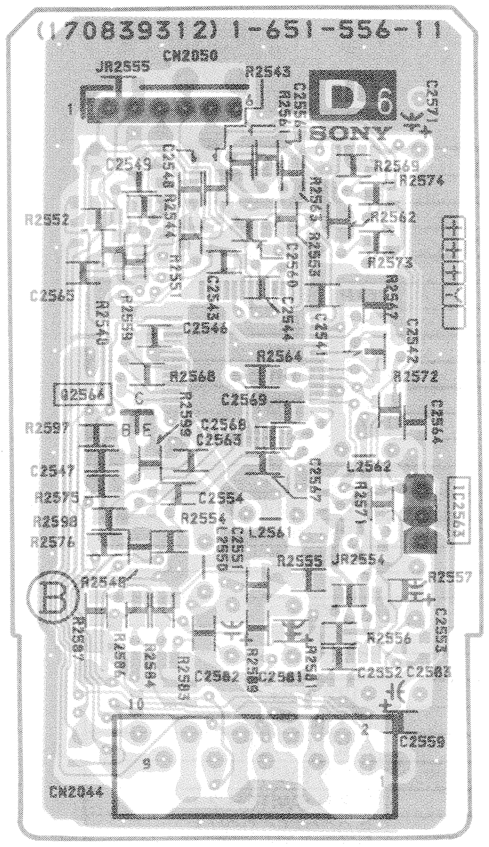
— D2 Board —

①  5 Vp-p (H)	②  3.5 Vp-p (2H)	③  3.3 Vp-p (2H)
④  5 Vp-p (H)	⑤  22.5 Vp-p (2V)	⑥  135 Vp-p (2V)
⑦  19.0 Vp-p (2H)	⑧  180 Vp-p (2V)	⑨  2.8 Vp-p (2V)

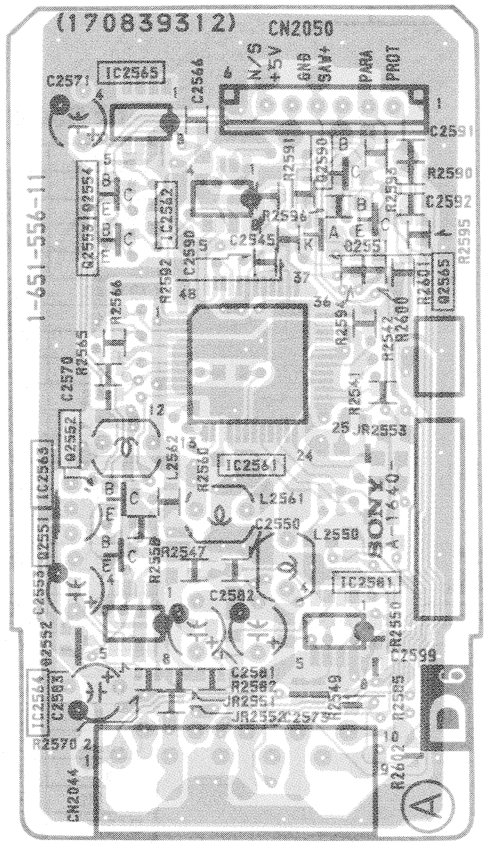
D6 [GEOMETRIE CONTROLLER, V PARA AMP, BUFFER]

VM [VM AMP]

— D6 Board — <Conductor Side>

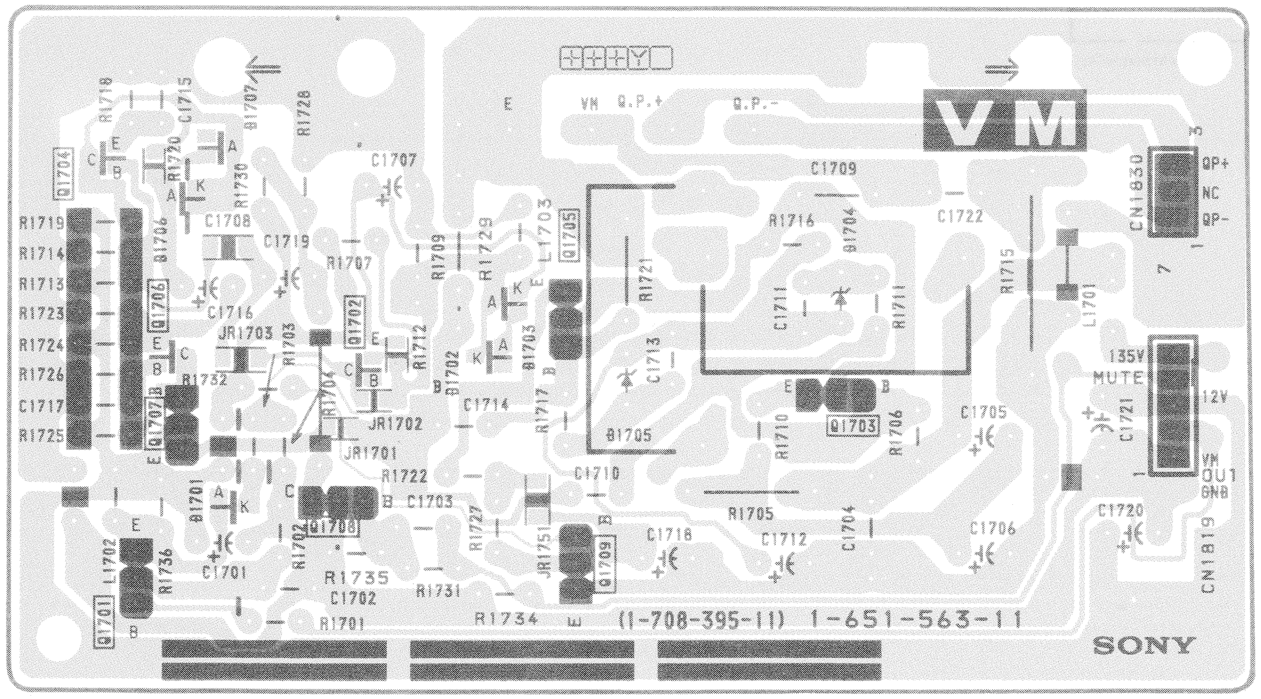

(170839312) 1-651-556-11
CN2050
D6
SONY
CN2044
B

— D6 Board — <Component Side>


(170839312)
CN2050
N/S
+5V
GND
5AV+
PARA
PROT
1-651-556-11
IC2565
IC2561
SONY
D6
CN2044
A

• ▨ : Pattern from the side which enables seeing.
• ▨ : Pattern of the rear side.

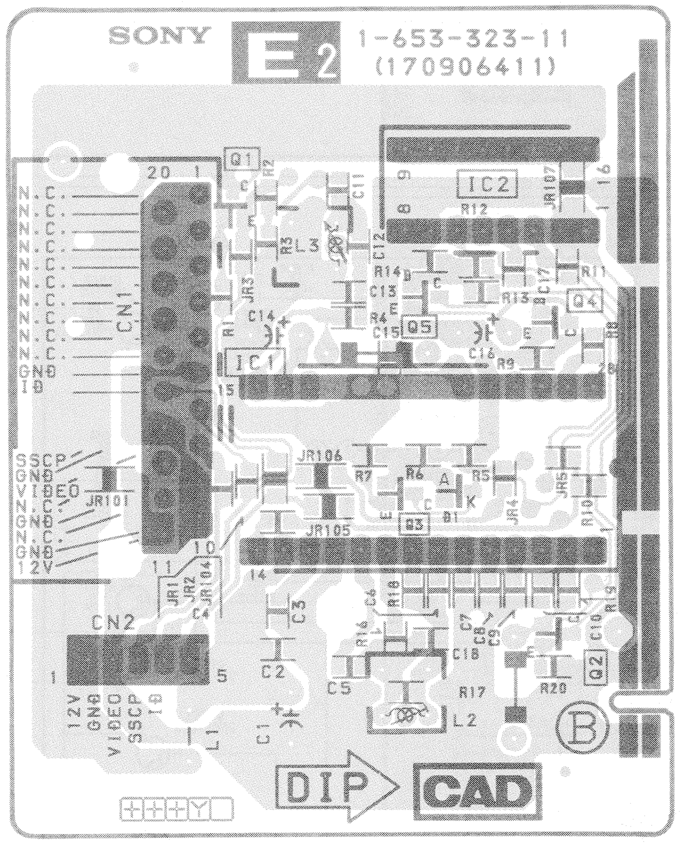
— VM Board —


VM
Q.P.+
Q.P.-
CN1830
QP+
NC
QP-
135V
MUTE
12V
VM OUT
GND
CN1819
(1-708-395-11) 1-651-563-11
SONY

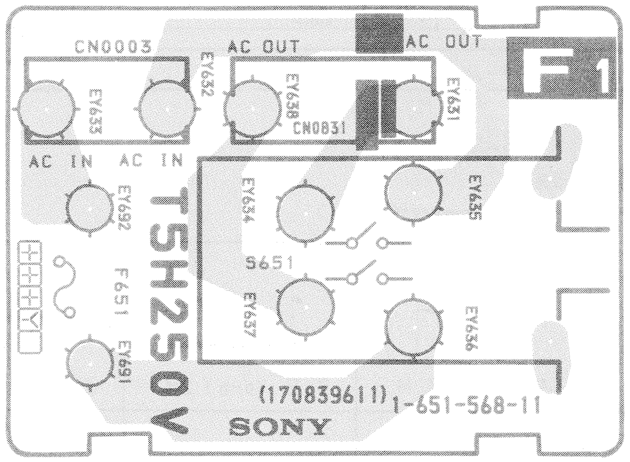
E2 [SECAM-IDENT]

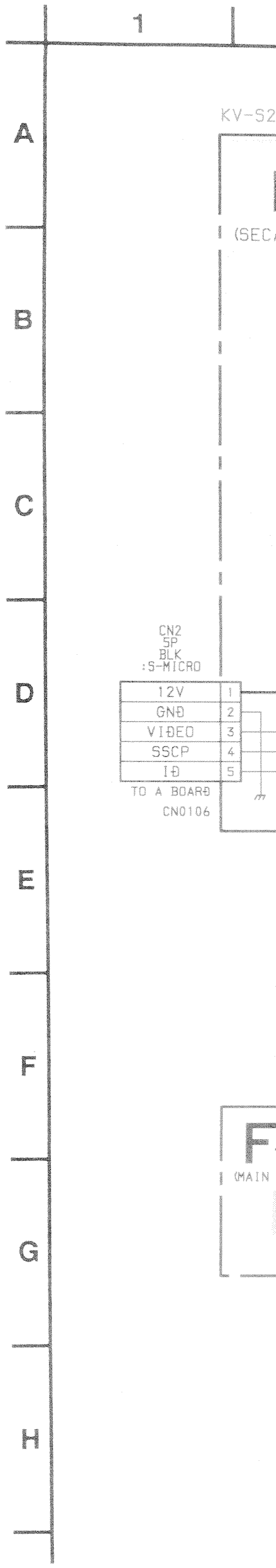
F1 [POWER SWITCH]

— E2 Board —


SONY
E2
1-653-323-11
(170906411)
CN1
CN2
IC1
IC2
12V
GND
VIDEO
SSCP
ID
DIP
CAD
B

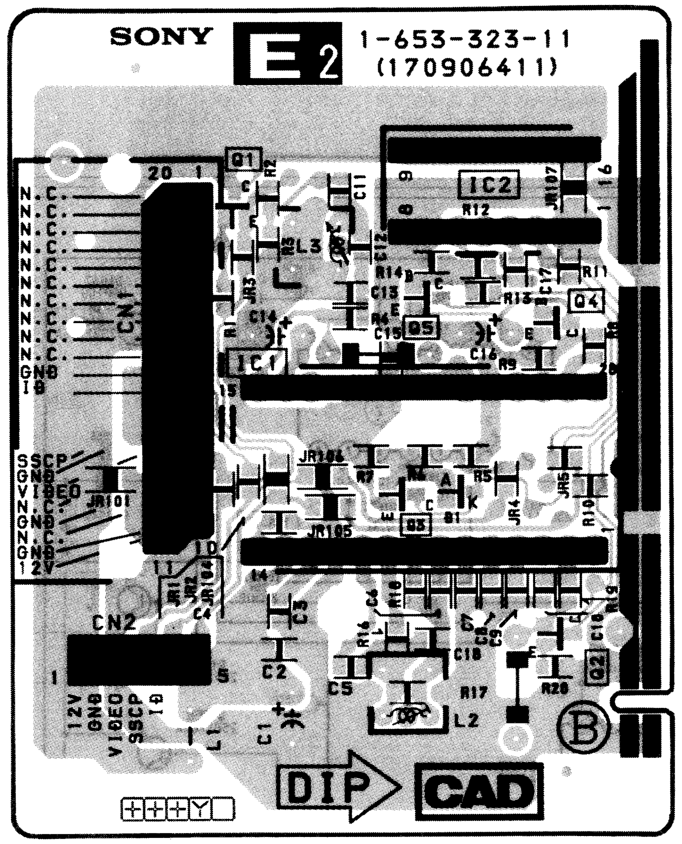
— F1 Board —


CN0003
AC OUT
AC IN
CN0831
F1
S651
F651
T5H250V
(170839611) 1-651-568-11
SONY

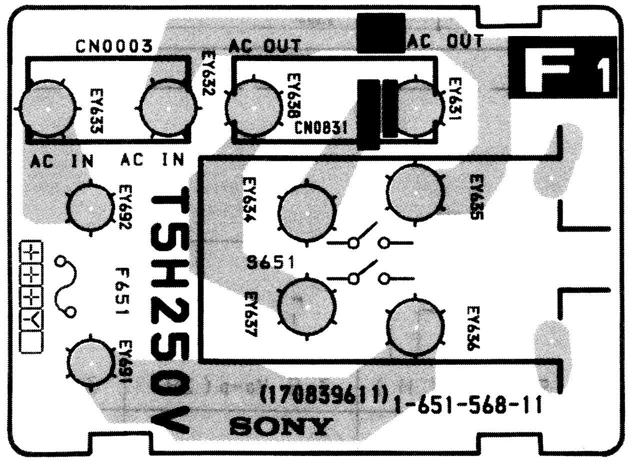

1
A
B
C
D
E
F
G
H
CN2
12V
GND
VIDEO
SSCP
ID
TO A BOARD
CN0106

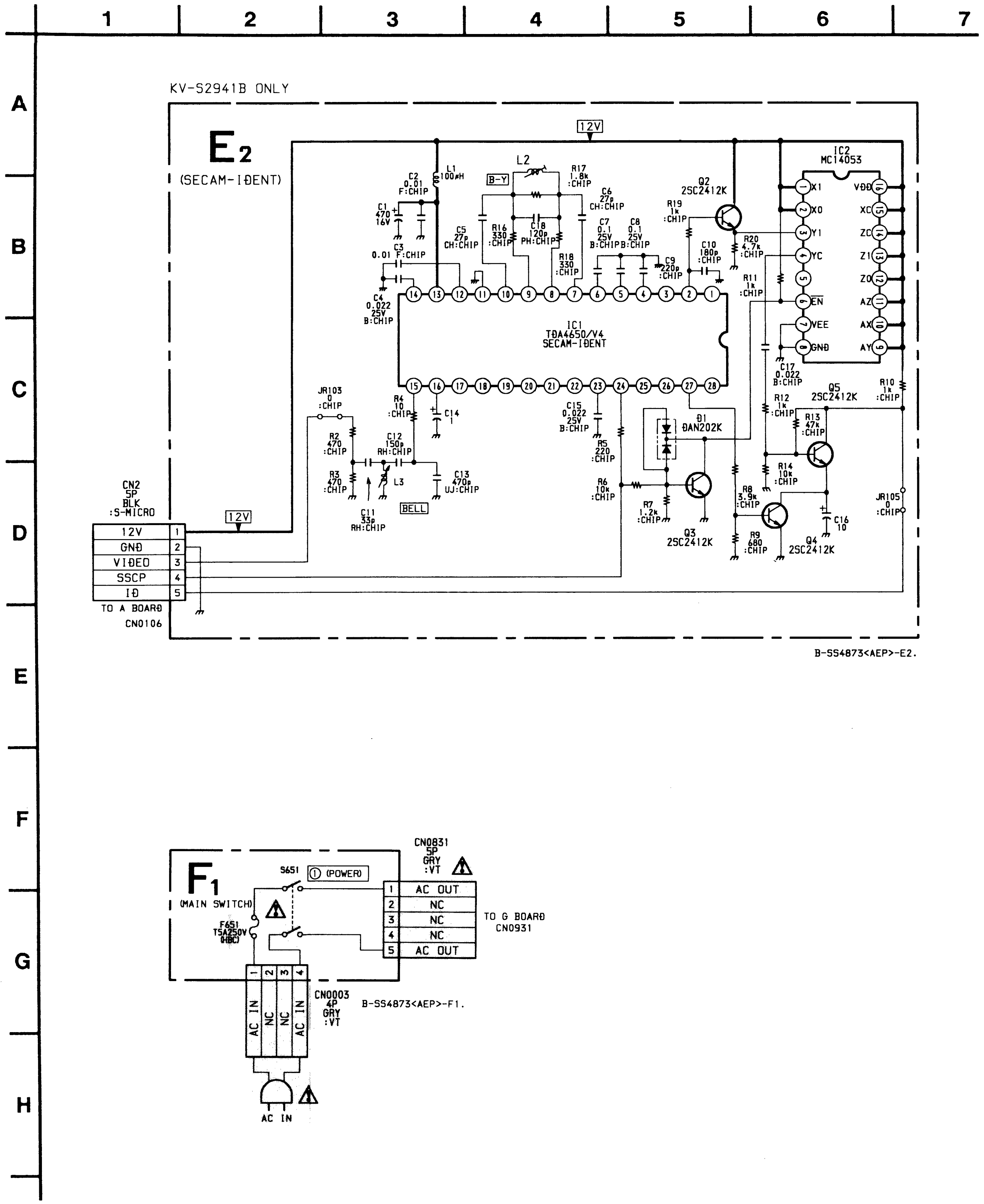
E2 [SECAM-IDENT] F1 [POWER SWITCH]

— E2 Board —


SONY
E2
1-653-323-11
(170906411)
CN1
CN2
IC1
IC2
Q1
Q2
Q3
Q4
Q5
L1
L2
L3
12V
GND
VIDEO
SSCP
ID
DIP
CAD

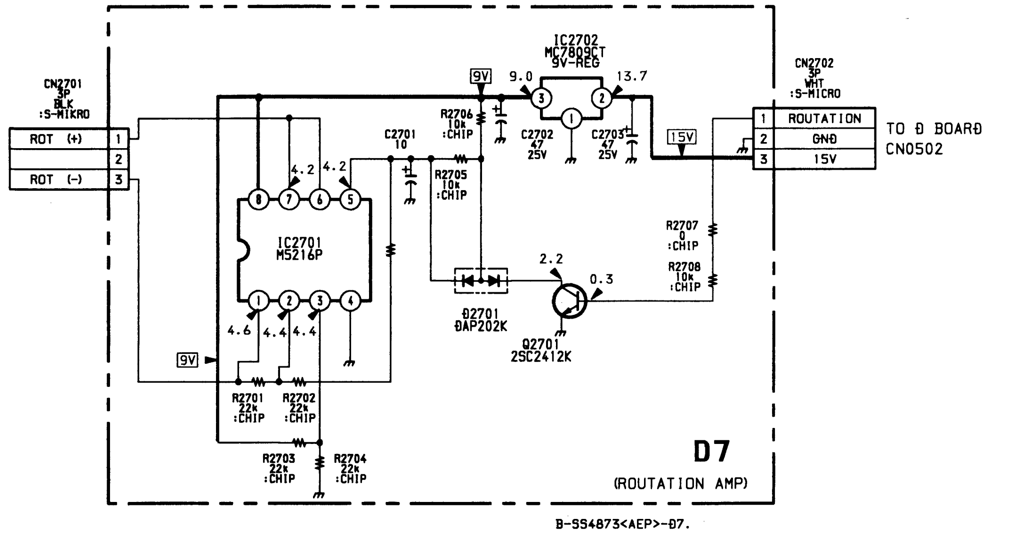
— F1 Board —

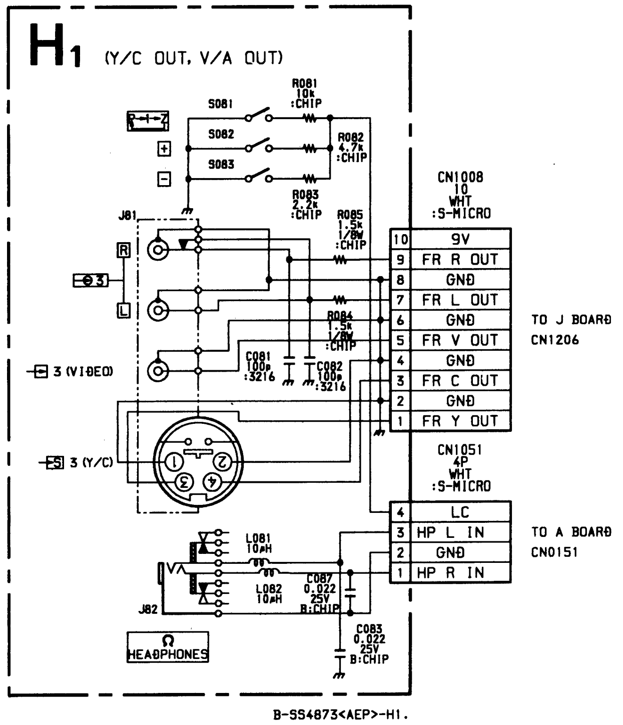

CN0003
AC OUT
AC OUT
F1
CN0831
AC IN
AC IN
S651
F651
T5H250V
(170839611) 1-651-568-11
SONY

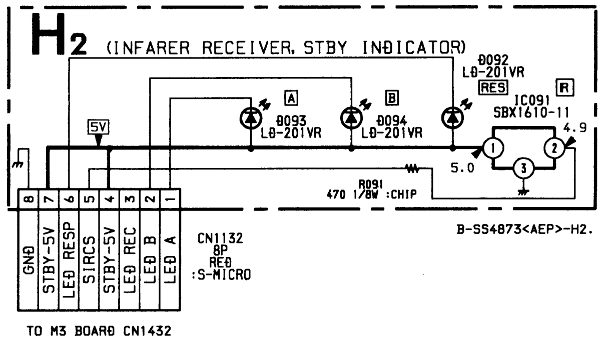

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
KV-S2941B ONLY
E2
(SECAM-IDENT)
12V
IC1
TDA4650/V4
SECAM-IDENT
IC2
MC14053
Q2 2SC2412K
Q3 2SC2412K
Q4 2SC2412K
Q5 2SC2412K
D1 DAN202K
B-Y
BELL
CN2
5P
BLK
:S-MICRO
12V
GND
VIDEO
SSCP
ID
TO A BOARD
CN0106
B-SS4873<AEP>-E2.
F1
(MAIN SWITCH)
S651
(POWER)
F651
T5A250V
CN0831
5P
GRY
:VT
AC OUT
NC
NC
NC
AC OUT
TO G BOARD
CN0931
CN0003
4P
GRY
:VT
AC IN
NC
NC
AC IN
B-SS4873<AEP>-F1.
AC IN

Schematic diagram
← E2 F1 board

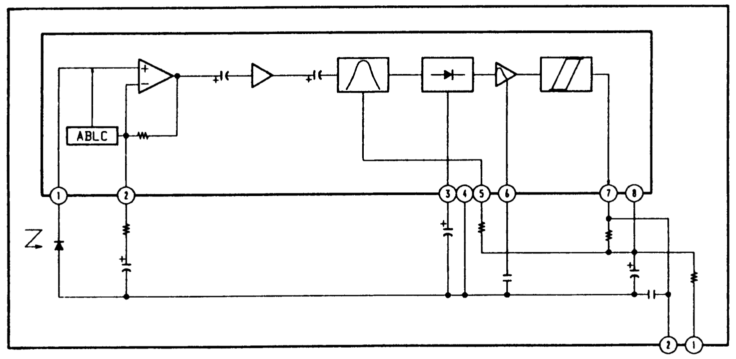
Schematic diagram
D2 board →


CN2701
3P
BLK
:S-MIKRO
ROT (+)
ROT (-)
IC2702
MC7809CT
9V-REG
9V
9.0
13.7
R2706
10k
:CHIP
C2701
10
C2702
47
25V
C2703
47
25V
15V
R2705
10k
:CHIP
IC2701
M5216P
4.2
4.2
4.6
4.4
4.4
2.2
0.3
D2701
DAP202K
Q2701
2SC2412K
R2707
0
:CHIP
R2708
10k
:CHIP
R2701
22k
:CHIP
R2702
22k
:CHIP
R2703
22k
:CHIP
R2704
22k
:CHIP
CN2702
3P
WHT
:S-MICRO
ROUTATION
GND
15V
TO D BOARD
CN0502
D7
(ROUTATION AMP)
B-SS4873<AEP>-D7.


H1 (Y/C OUT, V/A OUT)
S081
S082
S083
R081
10k
:CHIP
R082
4.7k
:CHIP
R083
2.2k
:CHIP
R085
1.5k
1/8W
:CHIP
R084
1.5k
1/8W
:CHIP
J81
R
L
3 (VIDEO)
3 (Y/C)
C081
100p
:3216
C082
100p
:3216
CN1008
10
WHT
:S-MICRO
9V
FR R OUT
GND
FR L OUT
GND
FR V OUT
GND
FR C OUT
GND
FR Y OUT
TO J BOARD
CN1206
CN1051
4P
WHT
:S-MICRO
LC
HP L IN
GND
HP R IN
TO A BOARD
CN0151
L081
10μH
L082
10μH
C087
0.022
25V
B:CHIP
C083
0.022
25V
B:CHIP
J82
HEADPHONES
B-SS4873<AEP>-H1.

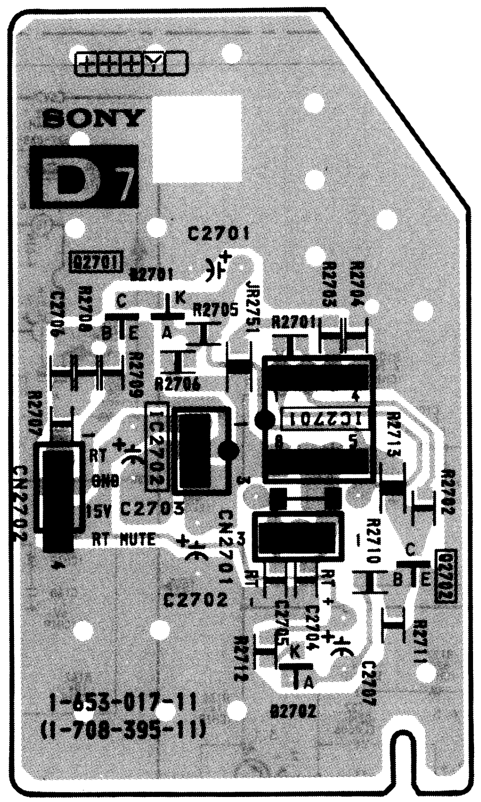

H2 (INFARER RECEIVER, STBY INDICATOR)
D092
LD-201VR
RES
R
IC091
SBX1610-11
A
B
D093
LD-201VR
D094
LD-201VR
5V
4.9
5.0
R091
470 1/8W :CHIP
GND
STBY-5V
LED RESP
SIRCS
STBY-5V
LED REC
LED B
LED A
CN1132
8P
RED
:S-MICRO
TO M3 BOARD CN1432
B-SS4873<AEP>-H2.

H2 BOARD IC091 SBX1610-11

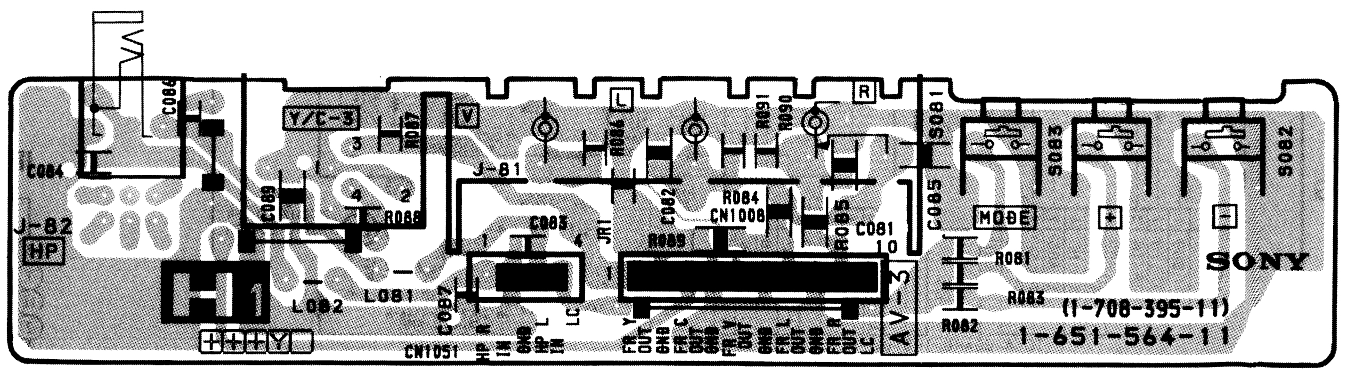


D7 [ROTATION AMP] **H1** [AUDIO/VIDEO IN, Y/C IN] **H2** [INFRARED RECEIVER, INDICATOR]

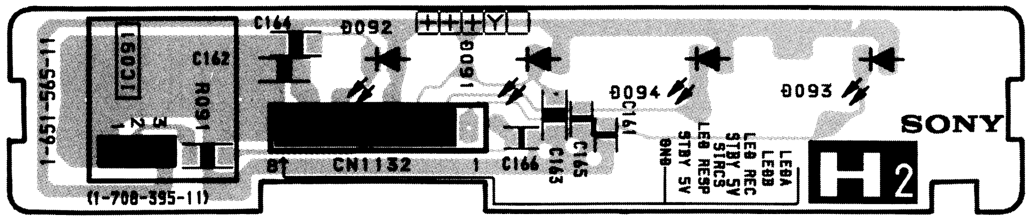
— D7 Board —


SONY
D7
C2701
Q2701
R2705
IC2701
IC2702
CN2701
CN2702
C2703
C2702
RT MUTE
Q2702
1-653-017-11
(1-708-395-11)

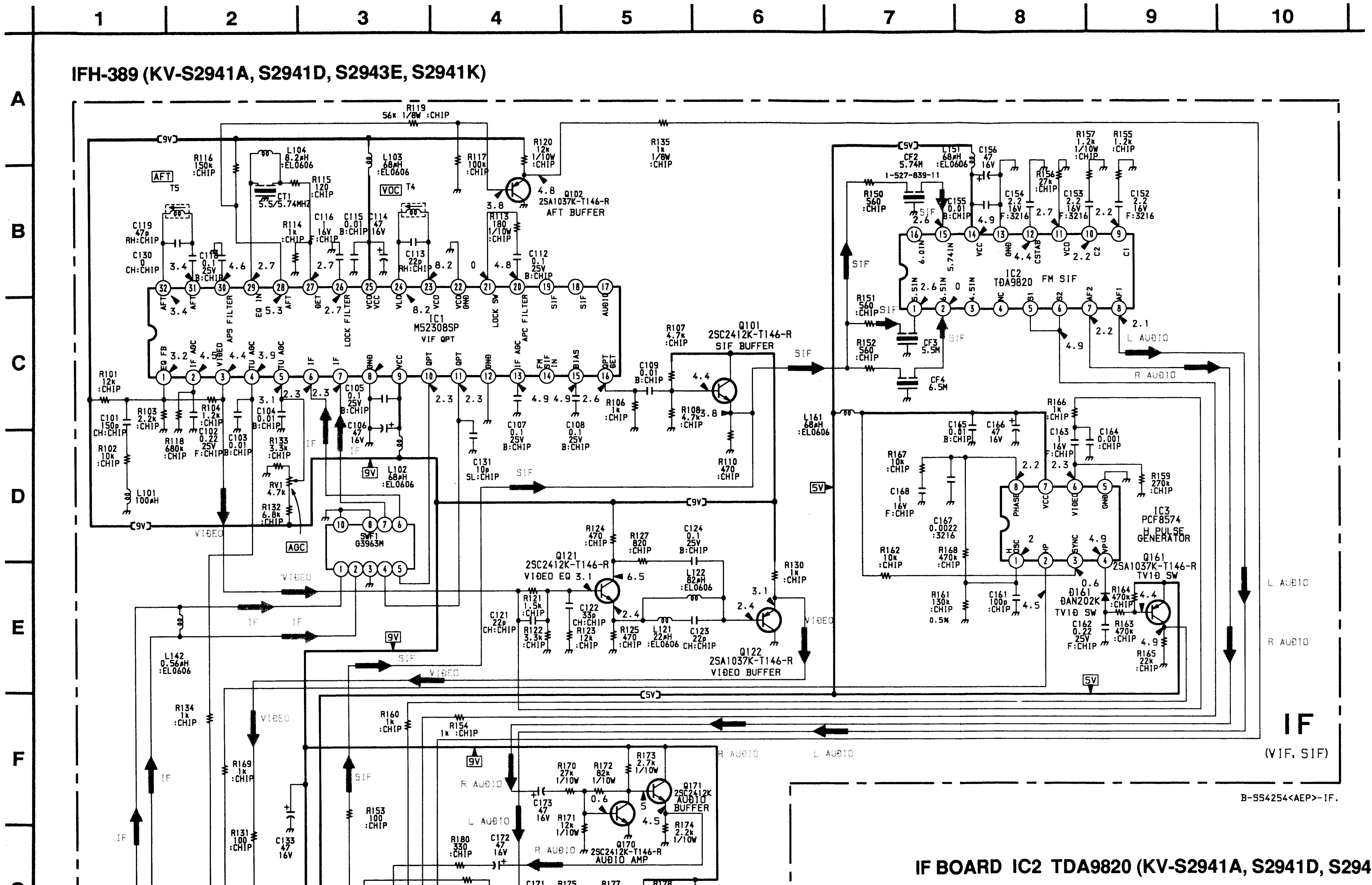
— H1 Board —


Y/C-3
V
L
R
J-81
J-82
HP
MODE
+
−
S081
S083
S082
SONY
CN1008
CN1051
AV-3
L082
L081
(1-708-395-11)
1-651-564-11

— H2 Board —

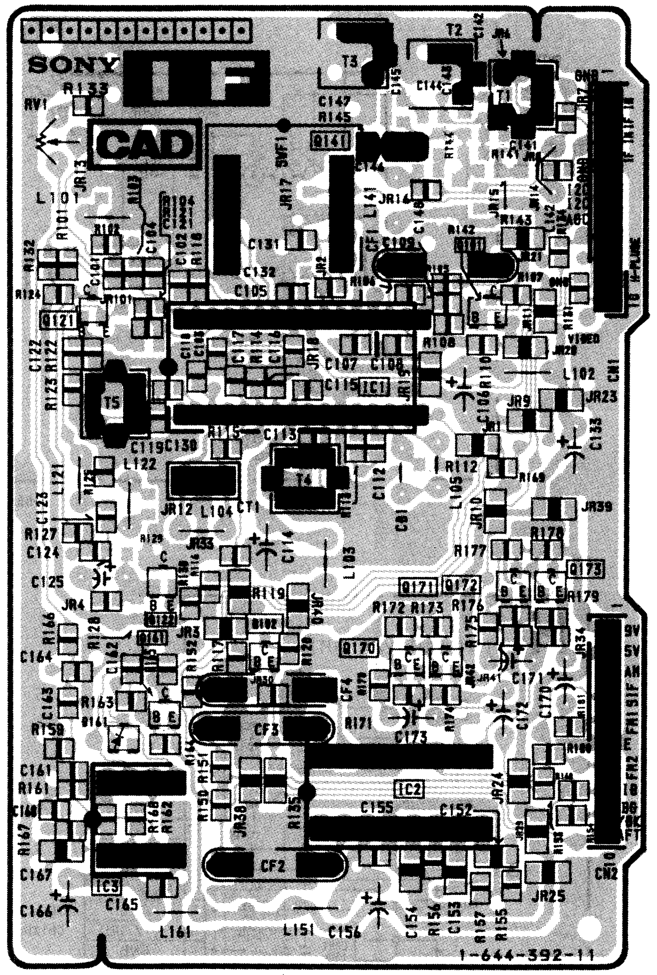

IC091
1-651-565-11
C164
D092
C162
R091
D094
D093
CN1132
SONY
H2
(1-708-395-11)

IFH-389 (KV-S2941A, S2941D, S2943E, S2941K)

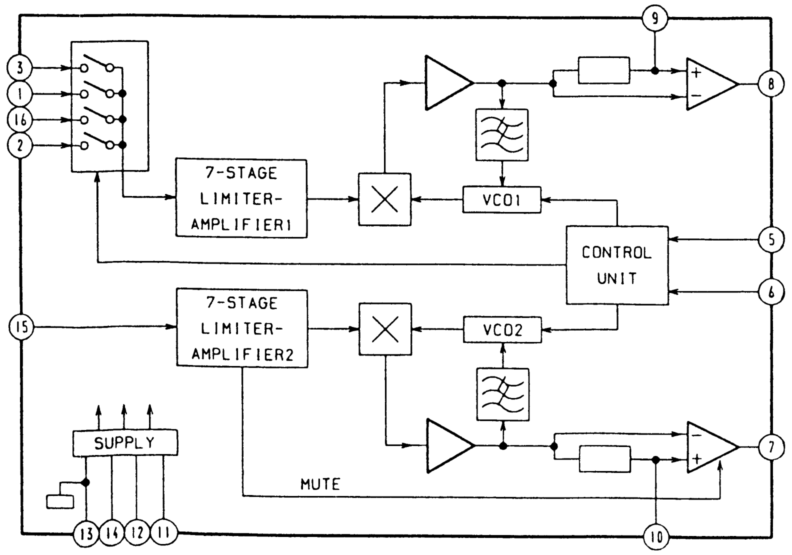

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
I
IC1 M52308SP VIF QPT
IC2 TDA9820 FM SIF
IC3 PCF8574 H PULSE GENERATOR
Q101 2SC2412K-T146-R SIF BUFFER
Q102 2SA1037K-T146-R AFT BUFFER
Q121 2SC2412K-T146-R VIDEO EQ
Q122 2SA1037K-T146-R VIDEO BUFFER
Q161 2SA1037K-T146-R TV10 SW
D161 DAN202K TV10 SW
Q170 2SC2412K-T146-R AUDIO AMP
Q171 2SC2412K AUDIO BUFFER
Q172 2SC2412K-T146-R AUDIO AMP
Q173 2SC2412K-T146-R AUDIO BUFFER
SWF1 G3963M
CT1 5.5/5.74MHz
CF2 5.74M 1-527-839-11
CF3 5.5M
CF4 6.5M
AFT T5
VCO T4
AGC
CN1 10P
CN2 10P
TO A BOARD IFB101
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV 10
BG DK
AFT
IF
(VIF, SIF)
B-SS4254<AEP>-IF.

IF [VIF, SIF]

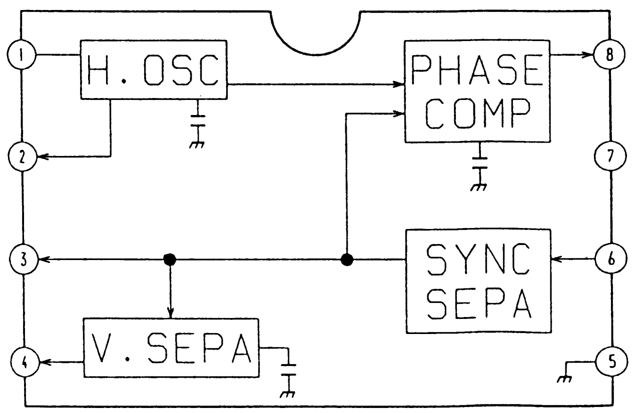
— IF Board — (KV-S2941A, S2941D, S2943E, S2941K)


SONY
IF
CAD
1-644-392-11

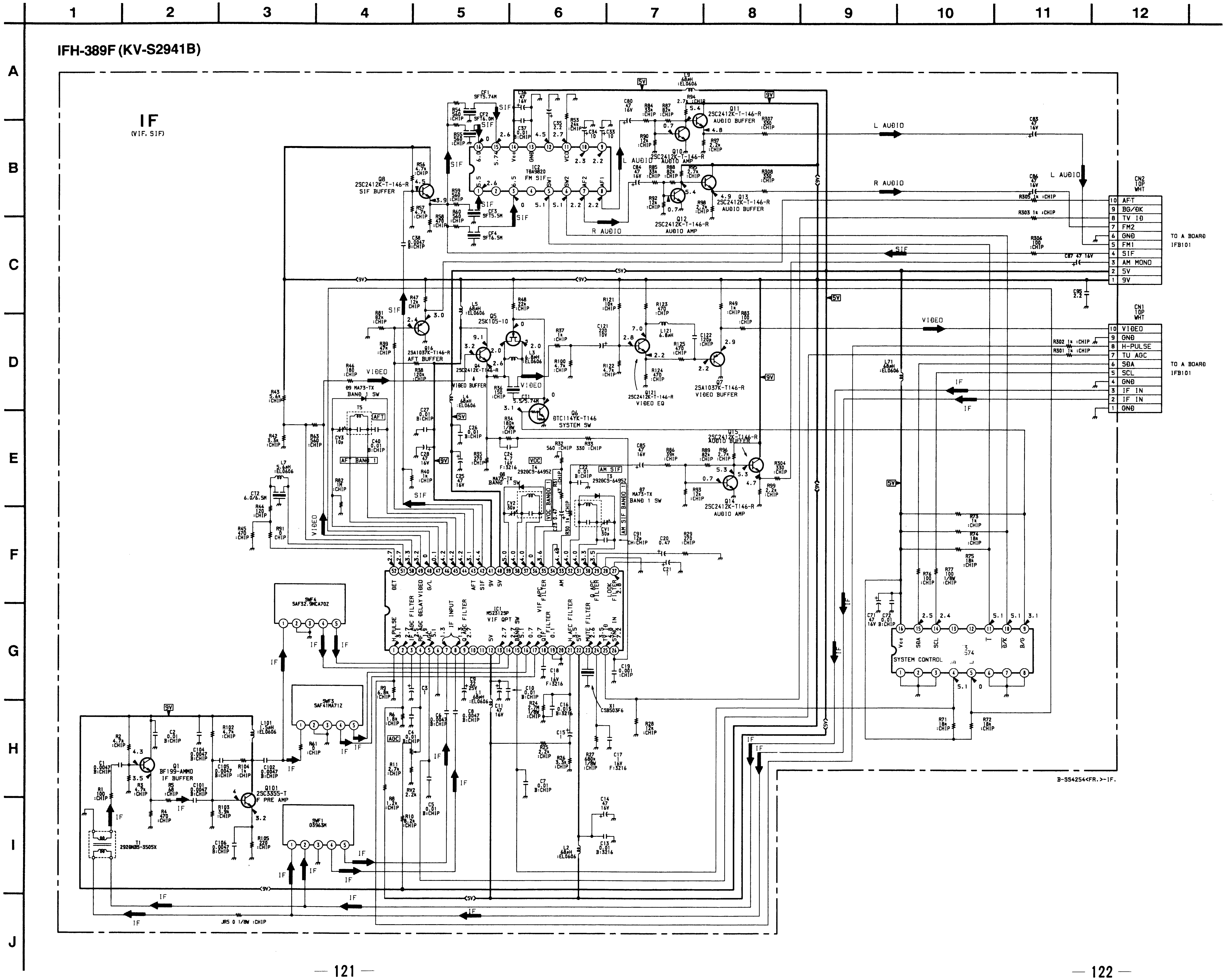
IF BOARD IC2 TDA9820 (KV-S2941A, S2941D, S2943E, S2941K)


7-STAGE LIMITER-AMPLIFIER1
VCO1
CONTROL UNIT
7-STAGE LIMITER-AMPLIFIER2
VCO2
SUPPLY
MUTE

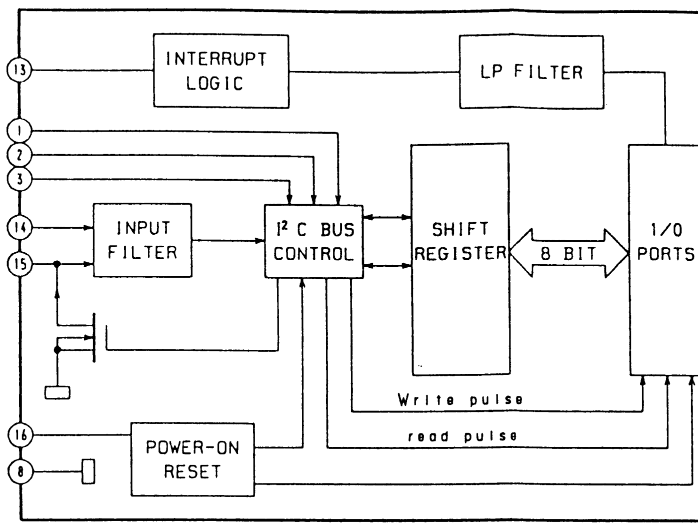
IF BOARD IC3 BA7046 (KV-S2941A, S2941D, S2943E, S2941K, S2942U)


H. OSC
PHASE COMP
SYNC SEPA
V. SEPA

IFH-389F (KV-S2941B)

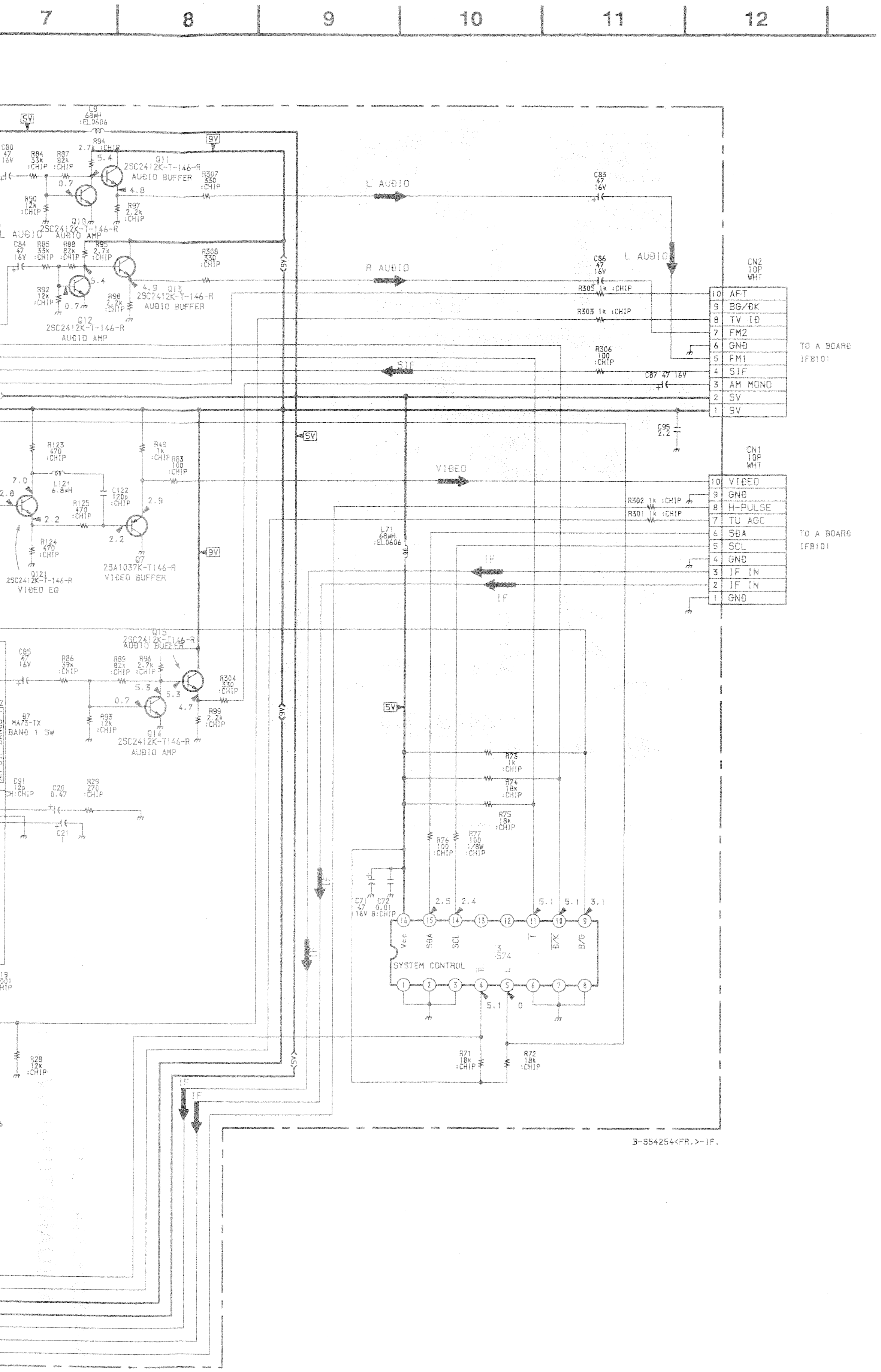

1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
IF
(VIF, SIF)
L AUDIO
R AUDIO
SIF
VIDEO
IF
5V
9V
IC2
TBA9820
FM SIF
IC1
M52312SP
VIF QPT
Q8
2SC2412K-T-146-R
SIF BUFFER
Q10
2SC2412K-T-146-R
AUDIO AMP
Q11
2SC2412K-T-146-R
AUDIO BUFFER
Q12
2SC2412K-T-146-R
AUDIO AMP
Q13
2SC2412K-T-146-R
AUDIO BUFFER
Q16
2SA1037K-T146-R
AFT BUFFER
Q5
2SK105-10
Q4
2SC2412K-T146-R
VIDEO BUFFER
Q6
DTC114YK-T146
SYSTEM SW
Q121
2SC2412K-T-146-R
VIDEO EQ
Q7
2SA1037K-T146-R
VIDEO BUFFER
Q15
2SC2412K-T-146-R
AUDIO BUFFER
Q14
2SC2412K-T-146-R
AUDIO AMP
Q1
BF199-AMMO
IF BUFFER
Q101
2SC5355-T
IF PRE AMP
SWF4
SAF32.9MCA70Z
SWF3
SAF41MA712
SWF1
03963M
T1
2920KBS-3505X
X1
CSB503F6
SYSTEM CONTROL
574
CN2
10P
WHT
10 AFT
9 BG/DK
8 TV IO
7 FM2
6 GND
5 FM1
4 SIF
3 AM MONO
2 5V
1 9V
TO A BOARD
IFB101
CN1
10P
WHT
10 VIDEO
9 GND
8 H-PULSE
7 TU AGC
6 SDA
5 SCL
4 GND
3 IF IN
2 IF IN
1 GND
TO A BOARD
IFB101
B-SS4254<FR.>-IF.

IF BOARD IC3 PC8574 (KV-S2941B)

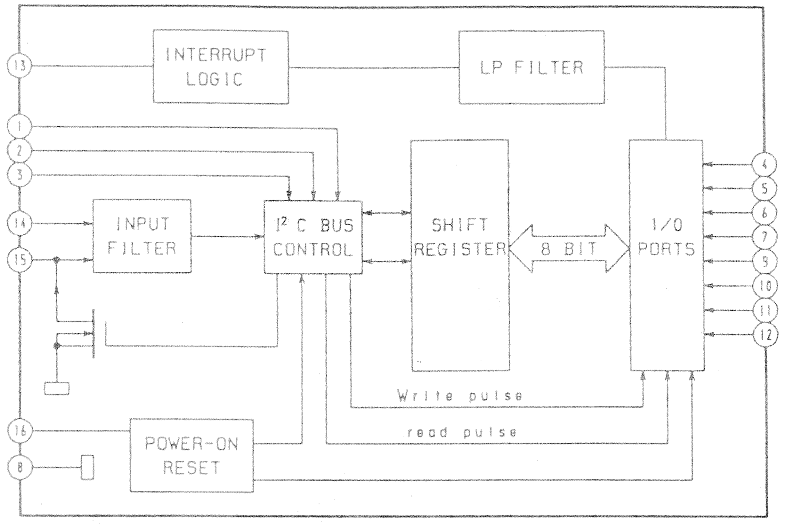

13
1
2
3
14
15
16
8
INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I² C BUS CONTROL
SHIFT REGISTER
8 BIT
I/O PORTS
POWER-ON RESET
Write pulse
read pulse

Sche

← IF

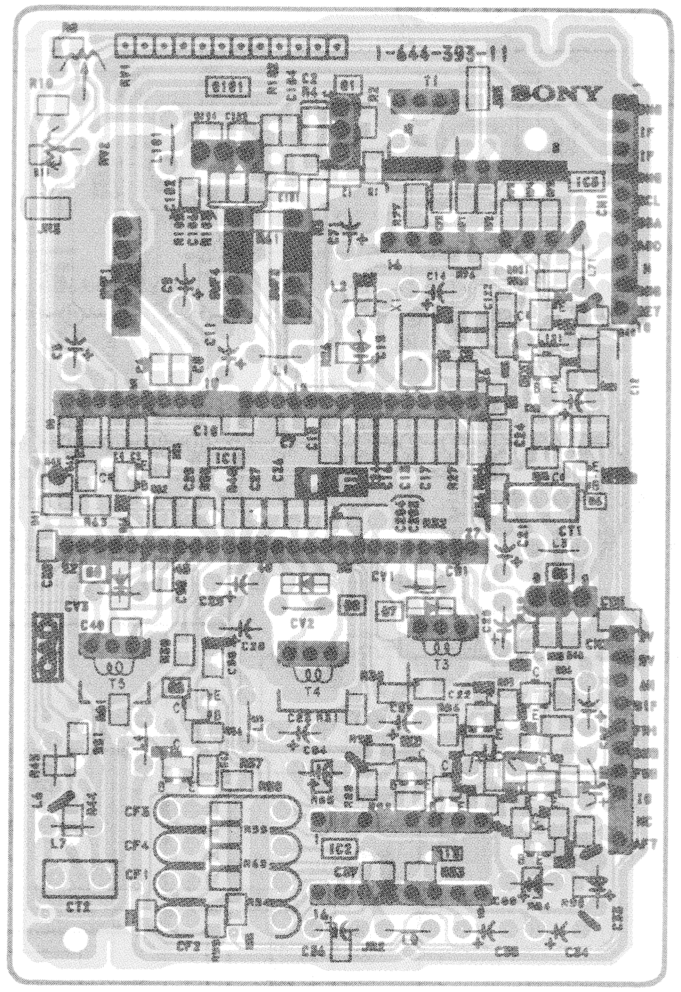

7
8
9
10
11
12
5V
9V
L AUDIO
R AUDIO
SIF
VIDEO
IF
Q11 2SC2412K-T-146-R AUDIO BUFFER
Q10 2SC2412K-T-146-R AUDIO AMP
Q13 2SC2412K-T-146-R AUDIO BUFFER
Q12 2SC2412K-T-146-R AUDIO AMP
Q7 2SA1037K-T146-R VIDEO BUFFER
Q121 2SC2412K-T-146-R VIDEO EQ
Q15 2SC2412K-T146-R AUDIO BUFFER
Q14 2SC2412K-T146-R AUDIO AMP
D7 MA73-TX BAND 1 SW
CN2 10P WHT
AFT
BG/DK
TV ID
FM2
GND
FM1
SIF
AM MONO
5V
9V
TO A BOARD IFB101
CN1 10P WHT
VIDEO
GND
H-PULSE
TU AGC
SDA
SCL
GND
IF IN
IF IN
GND
TO A BOARD IFB101
SYSTEM CONTROL
IC3
SDA
SCL
B-S54254<FR.>-IF.

IF BOARD IC3 PC8574 (KV-S2941B)


INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I² C BUS CONTROL
SHIFT REGISTER
8 BIT
I/O PORTS
POWER-ON RESET
Write pulse
read pulse
13
1
2
3
14
15
16
8
4
5
6
7
9
10
11
12

IF [VIF, SIF]

— IF Board — (KV-S2941B)

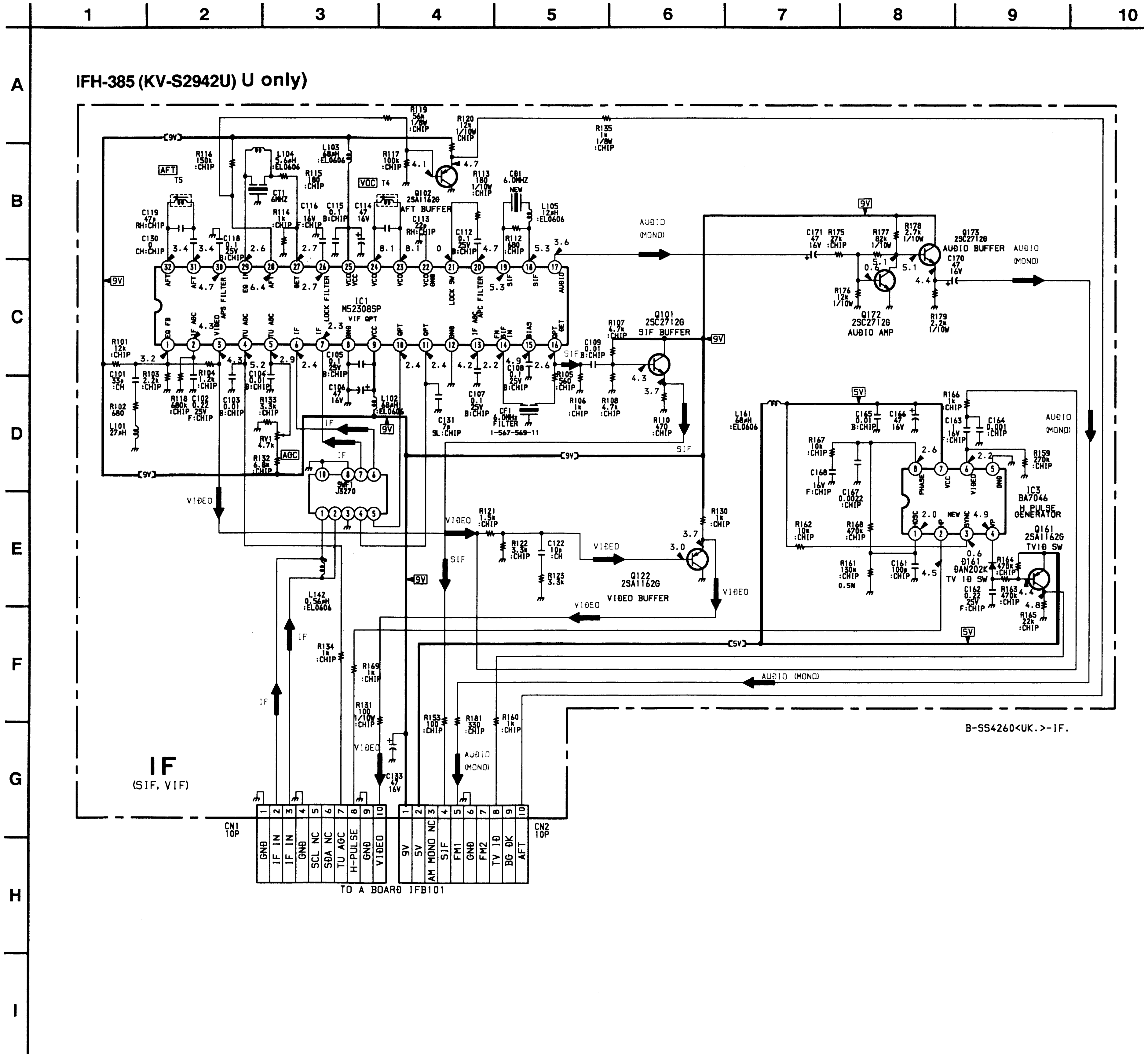

1-644-393-11
SONY
IC1
IC2
IC3
T3
T4
T5
CF1
CF2
CF3
CF4
CV1
CV2

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

Schematic diagram
← IF board

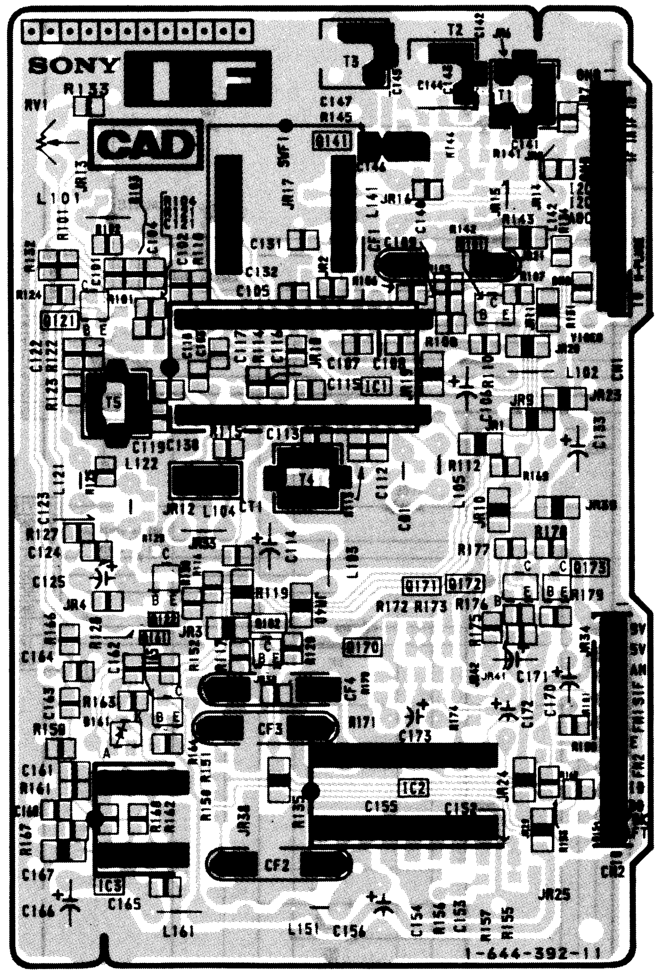
Schematic diagram
IF board →

IFH-385 (KV-S2942U) U only)

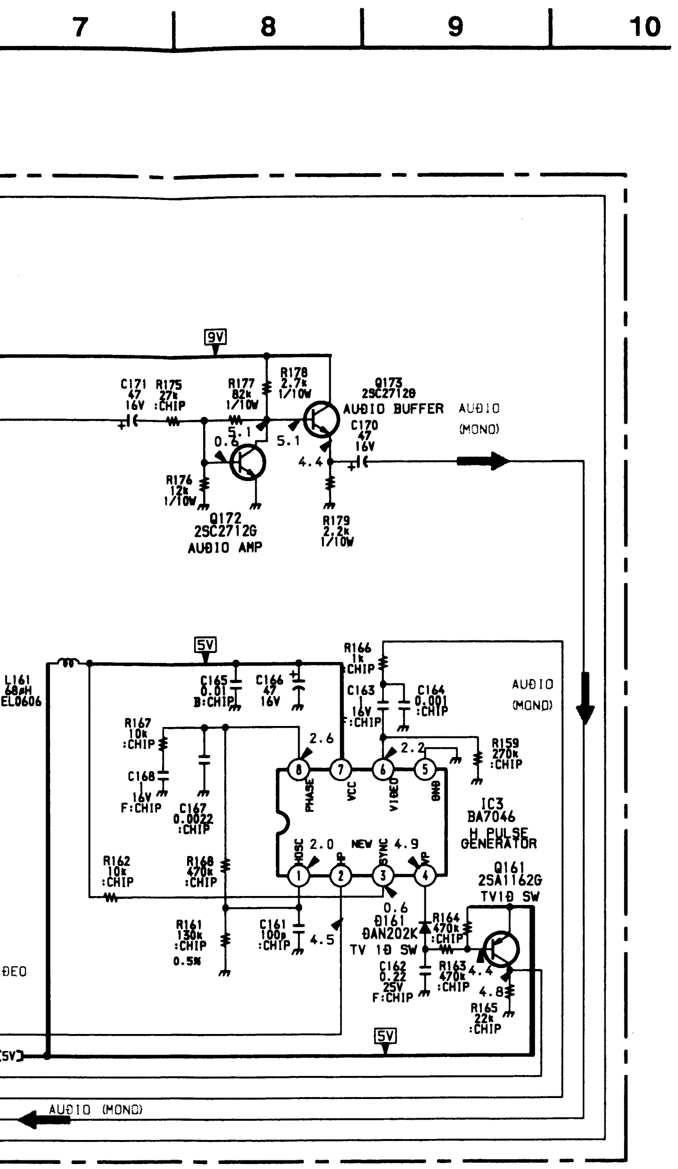

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
I
IC1 M52308SP VIF QPT
Q102 2SA1162G AFT BUFFER
Q101 2SC2712G SIF BUFFER
Q173 2SC2712G AUDIO BUFFER
Q172 2SC2712G AUDIO AMP
Q122 2SA1162G VIDEO BUFFER
IC3 BA7046 H PULSE GENERATOR
Q161 2SA1162G TV10 SW
D161 DAN202K TV 10 SW
SWF1 J3270
CF1 6.0MHz FILTER 1-567-569-11
AUDIO (MONO)
VIDEO
SIF
IF
9V
5V
B-SS4260<UK.>-IF.
IF
(SIF, VIF)
CN1 10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
CN2 10P
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV ID
BG OK
AFT
TO A BOARD IFB101

IF [VIF, SIF]

— IF Board — (KV-S2942U)


SONY
IF
CAD
IC1
IC2
IC3
T1
T3
T4
T5
CF2
CF3
1-644-392-11

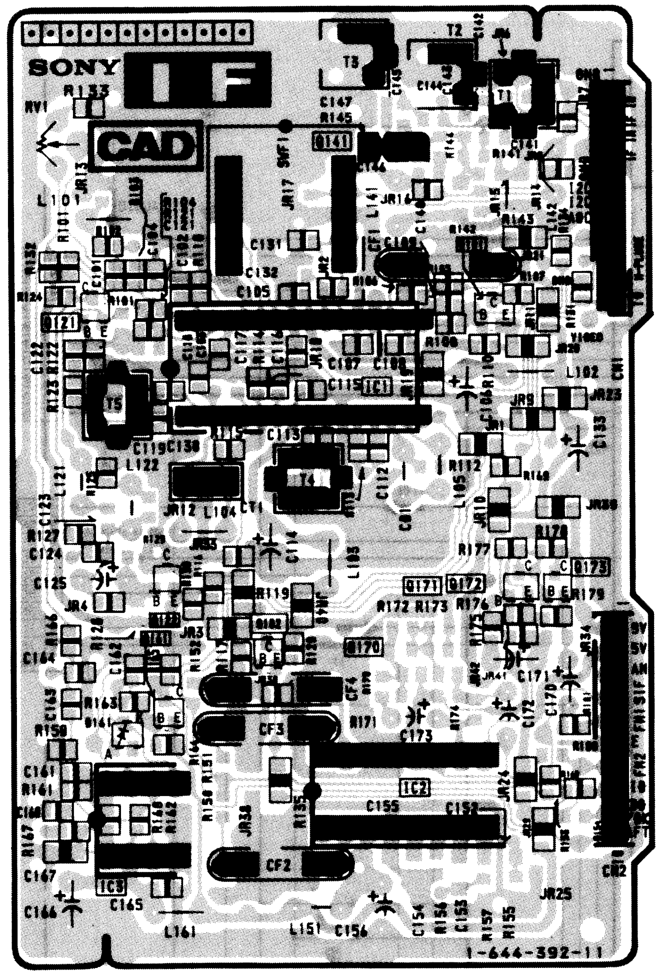
5-4. SCHEMATIC DIAGRAM OF TUNER
A BOARD TU101 UV916H


7
8
9
10
5V
C171 47 16V
R175 27k :CHIP
R177 82k 1/10W
R178 2.7k 1/10W
Q173 2SC2712G AUDIO BUFFER
AUDIO (MONO)
C170 47 16V
R176 12k 1/10W
Q172 2SC2712G AUDIO AMP
R179 2.2k 1/10W
L161 68μH
R166 1k :CHIP
C165 0.01 B:CHIP
C166 47 16V
C163 1 16V F:CHIP
C164 0.001 :CHIP
R167 10k :CHIP
C168 1 16V F:CHIP
C167 0.0022 :CHIP
R159 270k :CHIP
IC3 BA7046 H PULSE GENERATOR
R162 10k :CHIP
R168 470k :CHIP
R161 130k :CHIP 0.5%
C161 100p :CHIP
D161 DAN202K TV 1Ø SW
Q161 2SA1162G TV1Ø SW
R164 470k :CHIP
C162 0.22 25V F:CHIP
R163 470k :CHIP
R165 22k :CHIP
AUDIO (MONO)

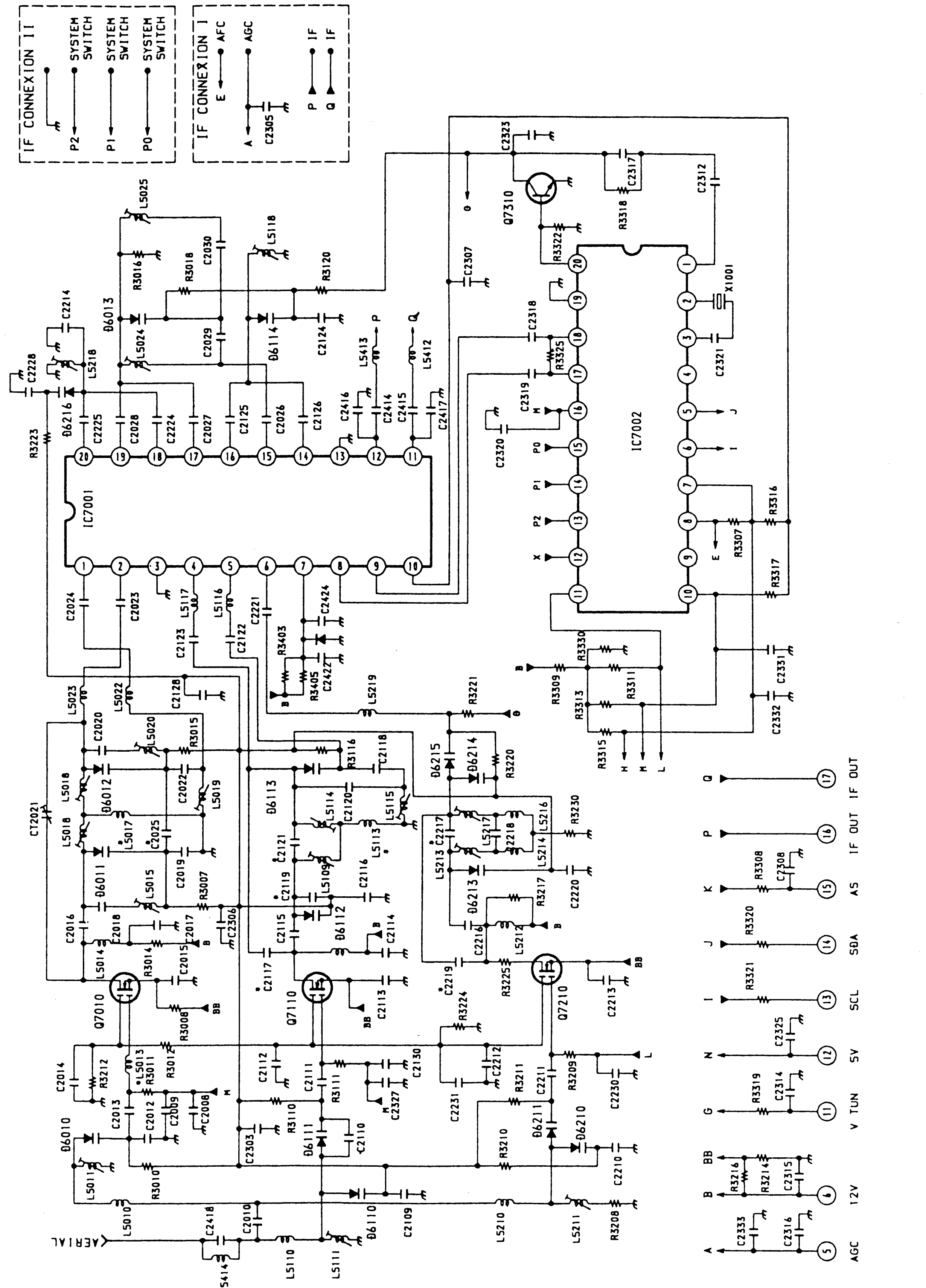
B-SS4260<UK.>-IF.

IF [VIF, SIF]

— IF Board — (KV-S2942U)

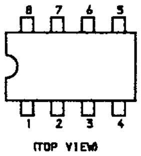

SONY
IF
CAD
1-644-392-11

5-4. SCHEMATIC DIAGRAM OF TUNER A BOARD TU101 UV916H

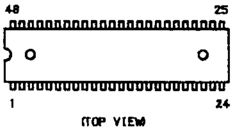

IF CONNEXION II
SYSTEM SWITCH
IF CONNEXION I
AFC
AGC
IF
IC7001
IC7002
Q7010
Q7110
Q7210
Q7310
X1001
AERIAL
Q IF OUT 17
P IF OUT 16
K AS 15
J SDA 14
I SCL 13
N 5V 12
G V TUN 11
B 12V 6
A AGC 5

5-5. SEMICONDUCTORS

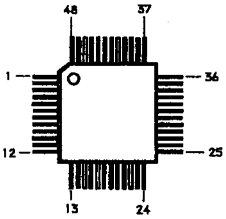
BA4558
LM393P
M5216P
SDA9086-5
ST24C16CB1
TDA2822M
TEA2114
µPC393C
µPC4558C
TDA2822M


8 7 6 5
1 2 3 4
(TOP VIEW)

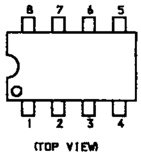
CXA1545AS


48
25
1
24
(TOP VIEW)

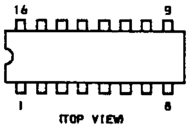
CXD2018Q


48
37
1
36
12
25
13
24

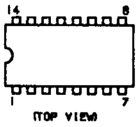
CXD2024Q-TL


8 7 6 5
1 2 3 4
(TOP VIEW)

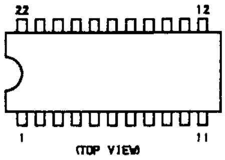
DM-48
MC14053BCP
MC34025P
SN74LS221N
TDA4661T/V2
YM7128
µPD4053BC


16
9
1
8
(TOP VIEW)

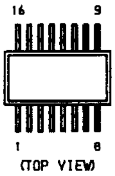
IR2112


14
8
1
7
(TOP VIEW)

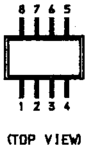
LA7856
LA7851MK


22
12
1
11
(TOP VIEW)

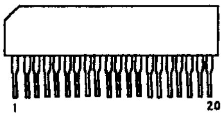
HEF4046BT


16
9
1
8
(TOP VIEW)

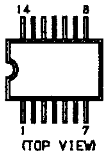
LM358D
LM358DR


8 7 6 5
1 2 3 4
(TOP VIEW)

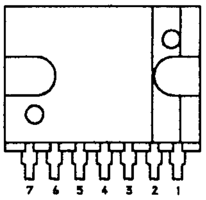
MB81C4256A-70PSZG



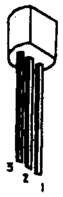
MC74F08DR2


14
8
1
7
(TOP VIEW)

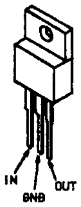
MC7815CT



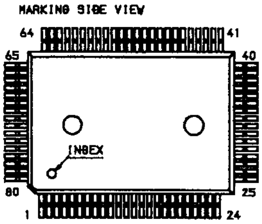
MC78L05ADPRP
MC78L08ACPRP
NJM78L05A



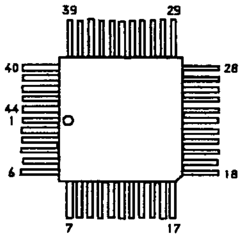
MC7809CT
NJM78M09FA



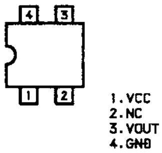
SAA4940H


MARKING SIDE VIEW
64
41
65
40
INDEX
80
25
1
24

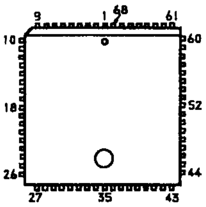
SAA4951
P87C652FBA-AE2F01


39
29
40
28
44
1
6
18
7
17

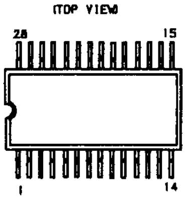
SFH617G-1


4
3
1
2
1.VCC
2.NC
3.VOUT
4.GND

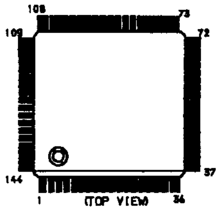
SAA7158
SDA30C162-GEG
SDA5273P-C22-GEG


9
1
68
61
10
60
18
52
26
44
27
35
43

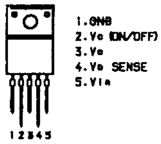
SDA9187-2XGEG
SDA9188-3XGEG


(TOP VIEW)
28
15
1
14

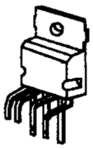
SI-3050CA


108
73
109
72
144
37
1
(TOP VIEW)
36

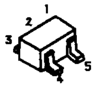
SI-3120C


1.GND
2.Vc (ON/OFF)
3.Vo
4.Vo SENSE
5.Vin
1 2 3 4 5

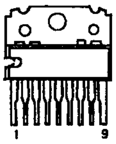
STV9379
TDA2052



TC4S66F-TE85L



TDA6111Q



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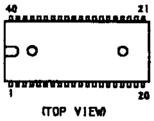
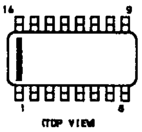
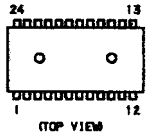

40
21
1
20
(TOP VIEW)

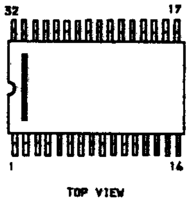
TDA6812-5


16
9
1
8
(TOP VIEW)

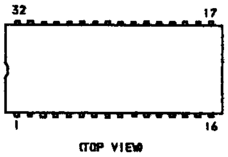
TDA8443B
TDA9145/N2B


24
13
1
12
(TOP VIEW)

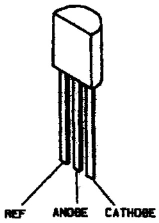
TDA8755


32
17
1
16
TOP VIEW

TDA9160/N2


32
17
1
16
(TOP VIEW)

TL431CLP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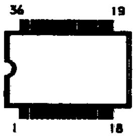
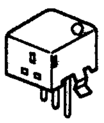
ANODE
CATHODE

ZA2970-30DTR



SBX1610-11



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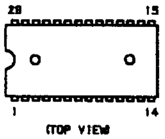
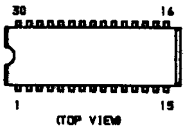
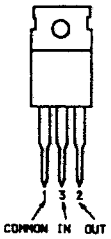

28
15
1
14
(TOP VIEW)

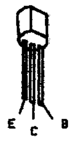
TDA7317


30
16
1
15
(TOP VIEW)

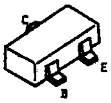
TEA7605


1
3
2
COMMON
IN
OUT

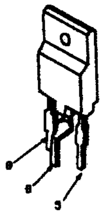
BF199



BF550
DTA114TK
DTA144EK
DTA144TK
DTC114EK
DTC124EK
DTC144EK
JC501Q
2SA1037K
2SA1162-G
2SC1623-L5L6
2SC2412K
2SC2412K-QR
2SC2413KQ
2SC2413KT146-Q
2SC2413KQ
2SC2785-HFE



IRFI740G



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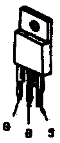

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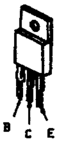
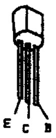
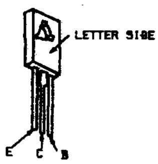
2SA1837
2SC4793



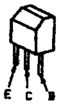
2SC2551Q



2SC2688-LK
2SC788-5


LETTER SIDE
E
C
B

2SC3733
2SD774-34



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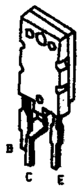

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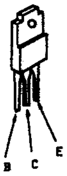
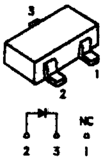
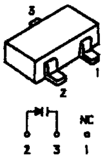
2SD1763A



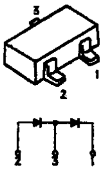
BAS16
MA3039H-TX
MA3056M
RD5.6M-B2



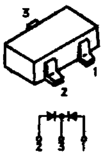
BBY40



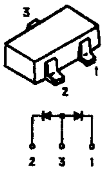
DA204K



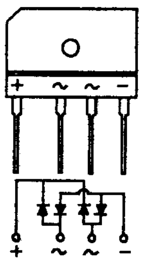
DAN202K



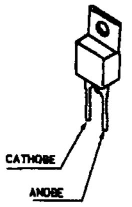
DAP202K



D4SB60L
RBA402L
RBA406B



ERD08M-15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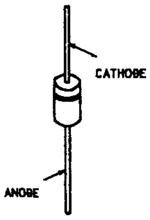
ANODE

EGP10GPKG23
EGP10D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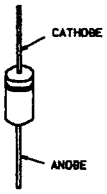
ANODE

D1N20R
EL1Z
GP08D
GP08DPKG23
MTZJ-9.1
NTZJ-33C
NTZJ-39C
RGP02-20EL-6394
RGP10GPKG23
1SS83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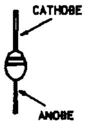
ANODE

ERC38-06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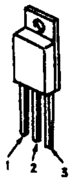
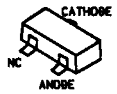
ANODE

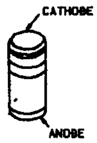
ESAD39M-06C



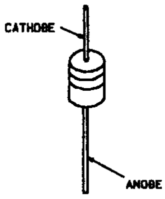
MA3027H
MA3030H


CATHODE
NC
ANODE

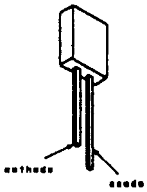
MA3051L-TX
MA3056H-TX


CATHODE
ANODE

MTZJ-13B
MTZJ-15B
MTZJ-18B
MTZJ-3.6A
MTZJ-36B
MTZJ-5.1B
MTZJ-5.6B
MTZJ-7.5A
MTZJ-9.1B
RD15ESB2
RD18ESB2
RD5.1ESB2
RD5.6ESB2
RD7.5ESB2
1SS133
1SS119


CATHODE
ANODE

LD-201VR


cathode
anode

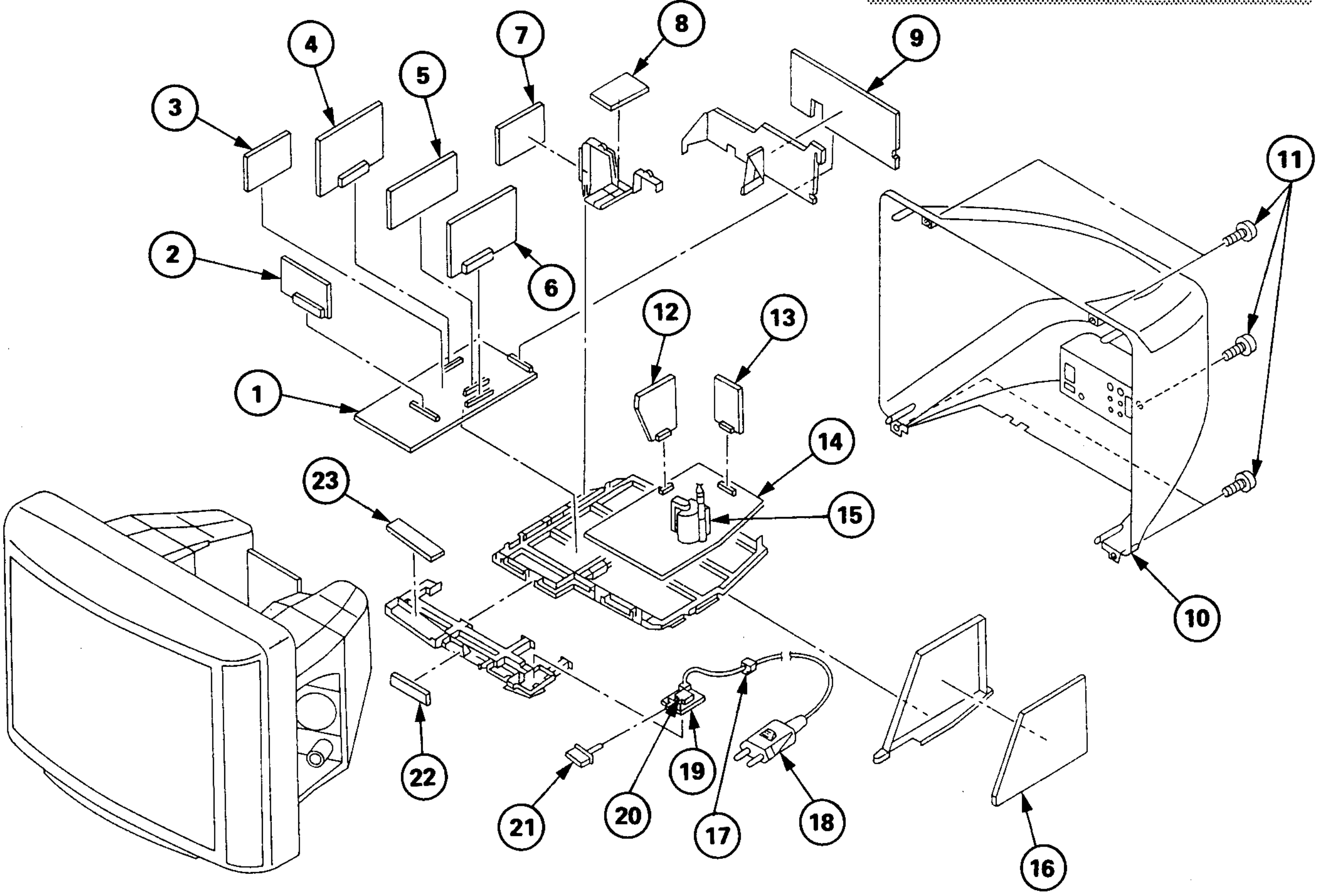
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

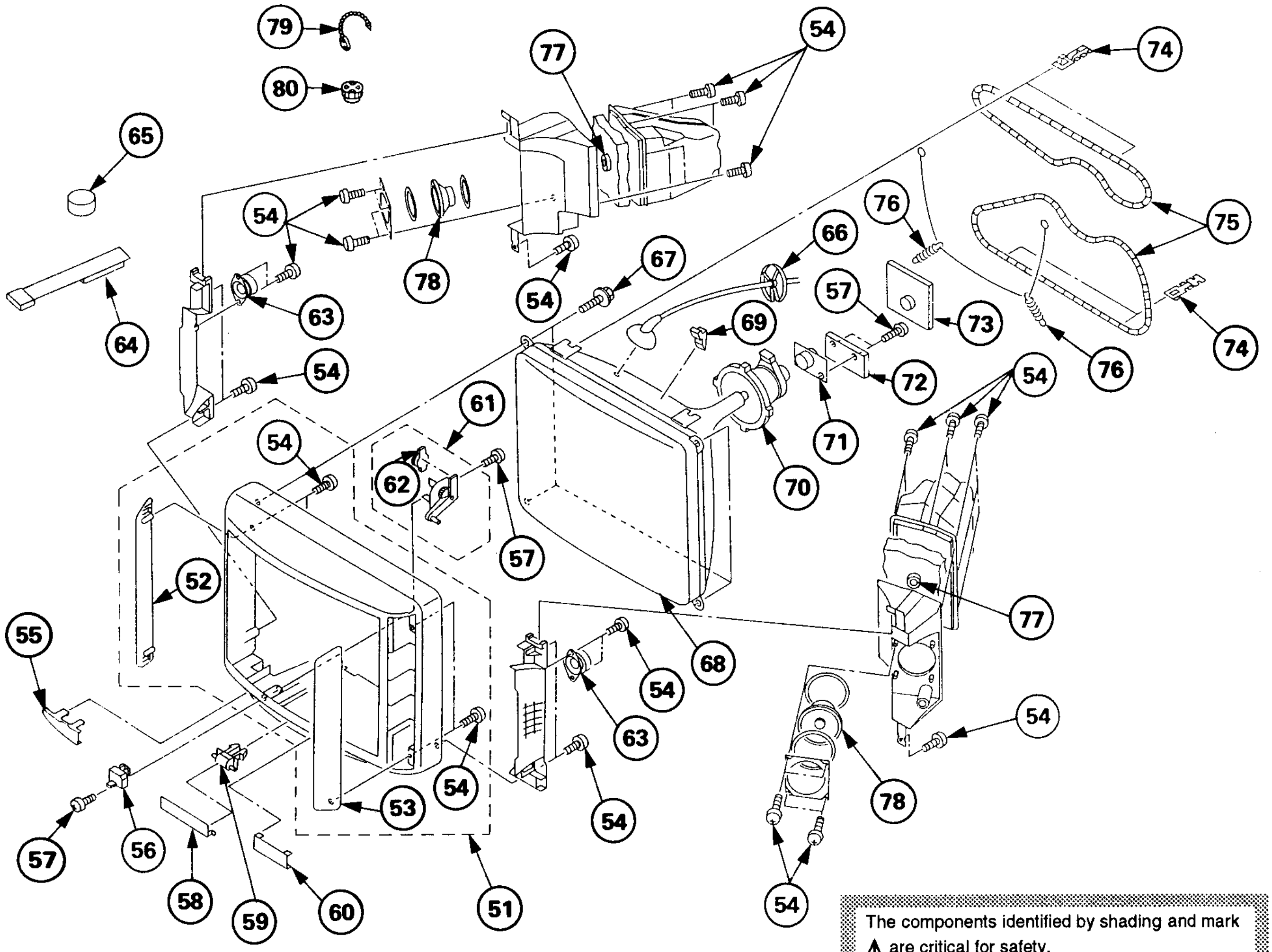
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*A-1632-172-A	A BOARD, COMPLETE (KV-S2941A,S2941D,S2943E,S2941K)	
	*A-1632-187-A	A BOARD, COMPLETE (KV-S2941B)	
	*A-1632-188-A	A BOARD, COMPLETE (KV-S2942U)	
2	*A-1635-018-A	M3 BOARD, COMPLETE	
3	⚠1-693-184-11	TUNER (UP44C) (KV-S2942U)	
	⚠1-693-185-11	TUNER (UV916H) (KV-S2941A,S2941B,S2941D,S2943E,S2941K)	
4	*A-1630-214-A	A2 BOARD, COMPLETE (KV-S2941A,S2941B,S2941D,S2941K)	
	*A-1630-215-A	A2 BOARD, COMPLETE (KV-S2943E)	
	*A-1630-216-A	A2 BOARD, COMPLETE (KV-S2942U)	
5	*A-1621-050-A	B BOARDD, COMPLETE	
6	*A-1626-001-A	Q BOARDCOMPLETE	
7	*A-1642-126-A	E2 BOARD, COMPLETE (KV-S2941B)	
8	*A-1640-143-A	D7 BOARD, COMPLETE	
9	*A-1651-060-A	J BOARD, COMPLETE	
10	4-202-146-11	COVER, REAR	
11	4-039-358-01	SCREW (4X16), (+) BV TAPPING	
12	*A-1642-111-A	D2 BOARD, COMPLETE	
13	*A-1640-125-A	D6 BOARD, COMPLETE	
14	*A-1642-110-A	D BOARD, COMPLETE	
15	⚠8-598-943-00	TRANSFORMER ASSY, FLYBACK(NX-2661//U2B)	
16	*A-1636-004-A	G BOARD, COMPLETE	
17	4-038-615-01	HOLDER, AC CORD	
18	⚠1-751-680-11	CORD, POWER(WITH NOISE FILTER) 2.5A/250V (KV-S2941A,S2941B,S2941D,S2943E,S2941K)	
	⚠1-590-762-11	CORD, POWER(WITH PLUG) 2.5A/250V (KV-S2942U)	
19	*A-1624-028-A	F1 BOARD, COMPLETE	
20	⚠1-571-433-12	SWITCH, PUSH (AC POWER)	
21	4-202-124-01	BUTTON, POWER	
22	*A-1646-056-A	H2 BOARD, COMPLETE	
23	*A-1646-055-A	H1 BOARD, COMPLETE	

6-2. PICTURE TUBE



The components identified by shading and mark ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4200-149-1	BEZNET ASSY	52-54
52	4-202-629-01	GRILLE (L), SPEAKER	
53	4-202-628-01	GRILLE (R), SPEAKER	
54	4-039-358-01	SCREW (4X16), (+) BV TAPPING	
55	4-202-127-41	PLATE, ORNAMENTAL (KV-S2941A,S2941B,S2941D,S2943E,S2941K)	
55	4-202-127-51	PLATE, ORNAMENTAL (KV-S2942U)	
56	4-036-881-01	LOCK ASSY, DOOR	
57	4-039-356-01	SCREW (3X12), (+) BV TAPPING	
58	4-202-125-01	DOOR	
59	4-202-555-01	SHAFT, DOOR	
60	4-202-123-01	WINDOW, ORNAMENTAL	
61	X-4030-459-1	DAMPER ASSY	62
62	4-036-880-11	DAMPER	
63	1-504-121-21	SPEAKER (SQUAWKER) (5CM)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
64	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
65	1-452-032-00	MAGNET, DISK; 10MM ϕ	
66	*4-202-554-01	HOLDER, HV CABLE	
67	4-036-188-01	SCREW (M), PT	
68	⚠8-733-841-05	PICTURE TUBE 29GX (M68KZT10X)	
69	3-704-495-01	SPACER, DY	
70	⚠8-451-444-11	DEFLECTION YOKE Y29GXC (MTY)	
71	⚠1-452-509-12	NECK ASSY, PICTURE TUBE (NA-308)	
72	*A-1644-048-A	VM BOARD, COMPLETE	
73	*A-1638-044-A	C BOARD, COMPLETE	
74	4-202-415-01	CLIP, DGC (29")	
75	⚠1-406-807-11	COIL, DEMAGNETIZATION	
76	4-369-318-51	SPRING, TENSION	
77	4-200-630-01	CUSHION, FOOT	
78	1-504-145-11	SPEAKER (12CM)	
79	4-308-870-00	CLIP,LEAD WIRE	
80	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	

B

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
All resistors are in ohms
F: nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF: μF, PF: μμF

COILS
- MMH: mH, UH: μH

REF.NO.	PART NO.	DESCRIPTION		REMARK
	*A-1621-050-A	B BOARD, COMPLETE *****************		
		<CAPACITOR>		
C301	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C302	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C303	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C304	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C305	1-163-096-00	CERAMIC CHIP 13PF	5%	50V
C306	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C307	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C308	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
C309	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
C310	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C311	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C313	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C314	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C316	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C317	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C318	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C320	1-124-910-11	ELECT 47MF	20%	50V
C321	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C325	1-163-245-11	CERAMIC CHIP 56PF	5%	50V
C330	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C340	1-163-005-11	CERAMIC CHIP 470PF	10%	50V
C360	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C501	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C503	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C504	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C505	1-163-011-11	CERAMIC CHIP 0.0015MF	10%	50V
C506	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C507	1-126-101-11	ELECT 100MF	20%	16V
C508	1-163-121-00	CERAMIC CHIP 150PF	5%	50V
C509	1-124-925-11	ELECT 2.2MF	20%	50V
C510	1-124-916-11	ELECT 22MF	20%	50V
C511	1-124-927-11	ELECT 4.7MF	20%	50V
C512	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C513	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C514	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C515	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
C516	1-163-014-00	CERAMIC CHIP 0.0027MF	10%	50V
C520	9-910-999-3A	FILM 0.0022MF	2%	100V
C521	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C530	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C560	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1401	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1402	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1403	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C1404	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C1405	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1406	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1407	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1408	1-164-182-11	CERAMIC CHIP 0.0033MF	10%	50V
C1409	1-124-903-11	ELECT 1MF	20%	50V
C1410	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1411	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1412	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1414	1-163-121-00	CERAMIC CHIP 150PF	5%	50V
C1416	1-163-263-11	CERAMIC CHIP 330PF	5%	50V
C1417	1-163-263-11	CERAMIC CHIP 330PF	5%	50V
C1418	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1419	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1420	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1421	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1422	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1423	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1424	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1425	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1426	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C1427	1-124-916-11	ELECT 22MF	20%	50V
C1428	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1430	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1431	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1432	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1433	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1434	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1435	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1437	1-164-343-11	CERAMIC CHIP 0.056MF	10%	25V
C1438	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1439	1-163-243-11	CERAMIC CHIP 47PF	5%	50V
C1440	1-163-245-11	CERAMIC CHIP 56PF	5%	50V
C1441	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1442	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1443	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C1444	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1445	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1446	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1447	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1448	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C1449	1-163-257-11	CERAMIC CHIP 180PF	5%	50V
C1450	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1452	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1453	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1454	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1455	1-163-239-11	CERAMIC CHIP 33PF	5%	50V
C1457	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1458	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1459	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1460	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1461	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1462	1-164-005-11	CERAMIC CHIP 0.47MF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1463	1-126-101-11	ELECT	100MF	20%	16V
C1464	1-126-101-11	ELECT	100MF	20%	16V
C1465	1-126-101-11	ELECT	100MF	20%	16V
C1466	1-126-101-11	ELECT	100MF	20%	16V
C1467	1-126-101-11	ELECT	100MF	20%	16V
C1468	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1469	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1470	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C1471	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1472	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1473	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1474	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1475	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1476	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1477	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1479	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1480	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1481	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1483	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1487	1-126-101-11	ELECT	100MF	20%	16V
C1491	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1492	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1493	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1494	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1495	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1496	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C1497	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C1498	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C1499	1-163-239-11	CERAMIC CHIP	33PF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN302	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D301	8-719-914-43	DIODE DAN202K
D304	8-719-401-41	DIODE MA3051L-TX
D501	8-719-401-53	DIODE MA3056H-TX
D1401	8-719-401-41	DIODE MA3051L-TX
D1405	8-719-914-42	DIODE DA204K

<DELAY LINE>

REF.NO.	PART NO.	DESCRIPTION
DL301	1-415-652-11	DC (LC)

<FILTER>

REF.NO.	PART NO.	DESCRIPTION
FL1403	1-236-071-11	ENCAPSULATED COMPONENT
FL1404	1-236-071-11	ENCAPSULATED COMPONENT
FL1405	1-236-071-11	ENCAPSULATED COMPONENT
FL1406	1-236-071-11	ENCAPSULATED COMPONENT
FL1407	1-236-071-11	ENCAPSULATED COMPONENT
FL1408	1-236-071-11	ENCAPSULATED COMPONENT
FL1409	1-236-071-11	ENCAPSULATED COMPONENT
FL1410	1-236-071-11	ENCAPSULATED COMPONENT

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC301	8-759-189-90	IC TDA9145/N2B
IC302	8-759-086-97	IC TDA4661T/V2
IC303	8-759-037-45	IC MC78L08ACPRP
IC501	8-759-181-19	IC TDA2579B
IC1401	8-759-073-16	IC TDA9160/N2
IC1402	8-759-086-97	IC TDA4661T/V2
IC1403	8-759-248-15	IC SDA9187-2XGEG
IC1404	8-759-192-90	IC SDA9188-3XGEG
IC1405	8-759-248-91	IC SDA9086-5
IC1406	8-759-183-36	IC TDA8443B
IC1407	8-759-183-36	IC TDA8443B
IC1410	8-759-037-45	IC MC78L08ACPRP
IC1411	8-759-708-05	IC NJM78L05A

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L307	1-408-405-00	INDUCTOR	4.7UH
L1401	1-408-418-00	INDUCTOR	56UH
L1402	1-408-418-00	INDUCTOR	56UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q301	8-729-901-00	TRANSISTOR DTC124EK
Q302	8-729-216-22	TRANSISTOR 2SA1162-G
Q305	8-729-901-01	TRANSISTOR DTC144EK
Q310	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q311	8-729-216-22	TRANSISTOR 2SA1162-G
Q313	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q501	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q502	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q503	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q504	8-729-216-22	TRANSISTOR 2SA1162-G
Q505	8-729-900-53	TRANSISTOR DTC114EK
Q506	8-729-901-04	TRANSISTOR DTA114EK
Q507	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q510	8-729-900-53	TRANSISTOR DTC114EK
Q1401	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1402	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1403	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G
Q1405	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1406	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1407	8-729-216-22	TRANSISTOR 2SA1162-G
Q1408	8-729-216-22	TRANSISTOR 2SA1162-G
Q1409	8-729-216-22	TRANSISTOR 2SA1162-G
Q1416	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1417	8-729-900-53	TRANSISTOR DTC114EK
Q1419	8-729-900-53	TRANSISTOR DTC114EK
Q1421	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1422	8-729-216-22	TRANSISTOR 2SA1162-G
Q1423	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1424	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1425	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1426	8-729-900-53	TRANSISTOR DTC114EK
Q1430	8-729-900-53	TRANSISTOR DTC114EK
Q1431	8-729-901-04	TRANSISTOR DTA114EK

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
R301	1-216-041-00	METAL GLAZE	470	5%	1/10W
R302	1-216-041-00	METAL GLAZE	470	5%	1/10W
R303	1-216-025-00	METAL GLAZE	100	5%	1/10W
R304	1-216-025-00	METAL GLAZE	100	5%	1/10W
R306	1-216-035-00	METAL GLAZE	270	5%	1/10W
R307	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R312	1-216-041-00	METAL GLAZE	470	5%	1/10W
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R316	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R317	1-216-073-00	METAL GLAZE	10K	5%	1/10W

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
R318	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R319	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R320	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R321	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R322	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R331	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R332	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R333	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R340	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R341	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R342	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R343	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R344	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R360	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R365	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R370	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R371	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R501	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R502	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R503	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R506	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R508	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R509	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R510	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R512	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R513	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R515	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R516	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R517	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R518	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R519	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R520	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R521	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R522	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R523	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R524	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R525	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R526	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R527	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R528	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R529	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R530	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R531	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R532	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R533	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R535	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R550	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1401	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1402	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1404	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1405	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1406	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1407	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1408	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1413	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1414	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1415	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1416	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1417	1-216-033-00	METAL GLAZE	220	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1418	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1419	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R1421	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1422	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1423	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1424	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1425	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1427	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1429	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1430	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1431	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1432	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1433	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1434	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1435	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1436	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1437	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1438	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1439	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1440	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1441	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1442	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1443	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1444	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1445	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1446	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1449	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1450	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1453	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1454	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1457	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1458	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1459	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1460	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1462	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1463	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1468	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1469	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1470	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1471	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1472	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1473	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1474	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1475	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1477	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R1478	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R1479	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R1480	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1481	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1483	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1484	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1485	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1486	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1487	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1489	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1490	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1493	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1494	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1495	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1496	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1497	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1498	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1499	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV501	1-241-763-11	RES, ADJ, CERMET 4.7K	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X301	1-567-504-11	OSCILLATOR, CRYSTAL	
X302	1-567-505-11	OSCILLATOR, CRYSTAL	
X1401	1-567-505-11	OSCILLATOR, CRYSTAL	
X1402	1-567-504-11	OSCILLATOR, CRYSTAL	

****

*A-1624-028-A F1 BOARD, COMPLETE
****

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0003⚠	*1-580-844-11	PIN, CONNECTOR (POWER)	
CN0831⚠	*1-695-292-11	PIN, CONNECTOR (POWER)	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
F651 ⚠	1-576-232-21	FUSE (H.B.C.) 5.0A/250V	
	1-533-230-11	HOLDER, FUSE	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S651 ⚠	1-571-433-12	SWITCH, PUSH (AC POWER)	

****

*A-1626-001-A Q BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3	1-124-927-11	ELECT	4.7MF	20%	50V
C4	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C5	1-162-568-11	CERAMIC CHIP	0.33MF	10%	16V
C6	1-124-907-11	ELECT	10MF	20%	50V
C7	1-163-077-91	CERAMIC CHIP	0.1MF		50V
C8	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C10	1-124-927-11	ELECT	4.7MF	20%	50V
C11	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C12	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C13	1-162-638-11	CERAMIC CHIP	1MF		16V
C14	1-124-927-11	ELECT	4.7MF	20%	50V
C15	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C17	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C18	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C19	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C20	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C21	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C22	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C23	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C24	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C25	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C26	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C27	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C28	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C29	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C30	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C31	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C32	1-124-925-11	ELECT	2.2MF	20%	50V
C33	1-124-907-11	ELECT	10MF	20%	50V
C34	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C35	1-124-907-11	ELECT	10MF	20%	50V
C36	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C37	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C38	1-163-161-00	CERAMIC CHIP	15PF	5%	50V
C39	1-163-161-00	CERAMIC CHIP	15PF	5%	50V
C40	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C41	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C42	1-124-907-11	ELECT	10MF	20%	50V
C43	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C44	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C45	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C46	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C48	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C49	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C50	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C51	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C52	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C53	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C54	1-124-907-11	ELECT	10MF	20%	50V
C55	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C56	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C57	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C58	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C59	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C61	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C62	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C63	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C64	1-124-927-11	ELECT	4.7MF	20%	50V
C65	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C66	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C67	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C68	1-124-907-11	ELECT	10MF	20%	50V
C69	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C70	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C71	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C72	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C73	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C74	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C75	1-163-131-00	CERAMIC CHIP	390PF	10%	50V
C85	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C86	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C87	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C88	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C89	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C91	1-124-907-11	ELECT	10MF	20%	50V
C92	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C93	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C94	1-124-916-11	ELECT	22MF	20%	50V
C95	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C96	1-124-916-11	ELECT	22MF	20%	50V
C97	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C98	1-124-916-11	ELECT	22MF	20%	50V
C99	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1001	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1004	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1005	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1006	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1007	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1008	1-163-038-00	CERAMIC CHIP	0.1MF		25V

Q

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1009	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1010	1-163-123-00	CERAMIC CHIP 180PF 5%	50V
C1012	1-163-097-00	CERAMIC CHIP 15PF 5%	50V
C1014	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1016	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
		<CONNECTOR>	
CN2145	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
		<DIODE>	
D3	8-719-047-36	DIODE BBY40	
D4	8-719-047-37	DIODE BAS16	
D5	8-719-047-37	DIODE BAS16	
D6	8-719-047-37	DIODE BAS16	
D8	8-719-047-36	DIODE BBY40	
D9	8-719-047-37	DIODE BAS16	
D10	8-719-047-36	DIODE BBY40	
D11	8-719-047-37	DIODE BAS16	
D12	8-719-047-37	DIODE BAS16	
D13	8-719-105-91	DIODE RD5.6M-B2	
D15	8-719-914-43	DIODE DAN202K	
D16	8-719-914-43	DIODE DAN202K	
		<FILTER>	
FL1	1-239-882-11	FILTER, LOW PASS	
FL2	1-236-071-11	ENCAPSULATED COMPONENT	
FL3	1-236-071-11	ENCAPSULATED COMPONENT	
FL4	1-236-071-11	ENCAPSULATED COMPONENT	
FL5	1-236-071-11	ENCAPSULATED COMPONENT	
FL6	1-236-071-11	ENCAPSULATED COMPONENT	
FL7	1-236-071-11	ENCAPSULATED COMPONENT	
FL8	1-236-071-11	ENCAPSULATED COMPONENT	
FL9	1-239-881-11	FILTER, LOW PASS	
FL10	1-239-881-11	FILTER, LOW PASS	
		<IC>	
IC1	8-759-257-59	IC TDA8755	
IC2	8-759-280-77	IC ZA2970-30DTR	
IC3	8-759-280-77	IC ZA2970-30DTR	
IC4	8-759-257-61	IC SAA4940H	
IC6	8-759-257-92	IC SAA4951	
IC7	8-759-280-00	IC P87C652FBA-AE2F01	
IC8	8-759-708-05	IC NJM78L05A	
IC9	8-759-267-23	IC MC74F08DR2	
IC10	8-759-267-23	IC MC74F08DR2	
IC11	8-759-708-05	IC NJM78L05A	
IC12	8-759-267-22	IC HEF4046BT	
IC13	8-759-234-77	IC TC4S66F	
IC14	8-759-708-05	IC NJM78L05A	
IC15	8-759-234-77	IC TC4S66F	
IC16	8-759-267-23	IC MC74F08DR2	
IC17	8-759-257-63	IC SAA7158	
IC18	8-759-708-05	IC NJM78L05A	
IC19	8-759-234-77	IC TC4S66F	
IC20	8-759-234-77	IC TC4S66F	
IC21	8-759-234-77	IC TC4S66F	
IC22	8-759-234-77	IC TC4S66F	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>	
L1	1-410-437-11	INDUCTOR 330UH	
L2	1-410-437-11	INDUCTOR 330UH	
L4	1-408-409-00	INDUCTOR 10UH	
L5	1-426-942-21	TRANSFORMER, DETECTOR	
L6	1-426-941-21	TRANSFORMER, DETECTOR	
L7	1-426-803-21	TRANSFORMER, DETECTOR	
L8	1-408-409-00	INDUCTOR 10UH	
L9	1-408-409-00	INDUCTOR 10UH	
L10	1-426-801-21	TRANSFORMER, DETECTOR	
L14	1-408-409-00	INDUCTOR 10UH	
L15	1-408-409-00	INDUCTOR 10UH	
L16	1-408-409-00	INDUCTOR 10UH	
		<TRANSISTOR>	
Q1	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q8	8-729-025-25	TRANSISTOR BF550	
Q9	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q10	8-729-025-25	TRANSISTOR BF550	
Q11	8-729-025-25	TRANSISTOR BF550	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G	
Q13	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q14	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q16	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q17	8-729-901-01	TRANSISTOR DTC144EK	
Q18	8-729-901-01	TRANSISTOR DTC144EK	
Q20	8-729-216-22	TRANSISTOR 2SA1162-G	
Q21	8-729-216-22	TRANSISTOR 2SA1162-G	
Q22	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q24	8-729-901-01	TRANSISTOR DTC144EK	
		<JUMPER RESISTOR>	
JR10	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR11	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR12	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR13	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR14	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR15	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR17	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR20	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR21	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR22	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR23	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR24	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR25	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR26	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR27	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR28	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR30	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR31	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR32	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR33	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR34	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR35	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR36	1-216-295-00	METAL GLAZE 0 5% 1/10W	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R3	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R4	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R5	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R6	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R7	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R8	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R12	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R15	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R16	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R20	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R23	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R24	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R25	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R26	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R27	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R28	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R29	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R30	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R33	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R34	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R35	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R36	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R37	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R38	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R40	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R44	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R45	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R46	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R47	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R48	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R49	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R54	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R55	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R56	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R57	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R58	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R59	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R60	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R61	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R62	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R63	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R64	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R65	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R66	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R67	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R68	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R69	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R70	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R71	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R72	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R73	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R74	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R75	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R76	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R77	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R79	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R80	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R81	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R83	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R84	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R85	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R86	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R87	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R88	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R89	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R90	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R91	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R92	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R93	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R94	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R95	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R99	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1001	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1002	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1003	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1004	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1005	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1006	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1007	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1008	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1011	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1012	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1013	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1014	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1015	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1016	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1017	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1018	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1019	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1020	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1021	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1022	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1024	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1027	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1028	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1029	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1030	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1033	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1038	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1039	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1050	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1052	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1053	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1054	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1055	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1056	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1057	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1058	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1063	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1064	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1065	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1066	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1067	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X1	1-578-774-11	VIBRATOR, CRYSTAL	

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A2 (KV-S2941A, S2941B, S2941D, S2941K)

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1630-214-A	A2 BOARD, COMPLETE ****************** (KV-S2941A,S2941B,S2941D,S2941K)			

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1203	1-124-927-11	ELECT	4.7MF	20%	50V
C1204	1-124-927-11	ELECT	4.7MF	20%	50V
C1205	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C1206	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1207	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C1208	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C1209	1-124-657-00	ELECT	10MF	20%	50V
C1210	1-124-907-11	ELECT	10MF	20%	50V
C1211	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C1212	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C1213	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1214	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C1215	1-124-910-11	ELECT	47MF	20%	50V
C1216	1-124-927-11	ELECT	4.7MF	20%	50V
C1217	1-124-927-11	ELECT	4.7MF	20%	50V
C1218	1-124-927-11	ELECT	4.7MF	20%	50V
C1219	1-124-927-11	ELECT	4.7MF	20%	50V
C1220	1-124-927-11	ELECT	4.7MF	20%	50V
C1221	1-124-927-11	ELECT	4.7MF	20%	50V
C1222	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C1223	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C1224	1-124-927-11	ELECT	4.7MF	20%	50V
C1225	1-124-927-11	ELECT	4.7MF	20%	50V
C1226	1-124-910-11	ELECT	47MF	20%	50V
C1227	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C1228	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C1230	1-126-101-11	ELECT	100MF	20%	16V
C1231	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1232	1-126-101-11	ELECT	100MF	20%	16V
C1233	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1234	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1235	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1236	1-124-927-11	ELECT	4.7MF	20%	50V
C1237	1-124-927-11	ELECT	4.7MF	20%	50V
C1245	1-163-131-00	CERAMIC CHIP	390PF	10%	50V
C1246	1-163-131-00	CERAMIC CHIP	390PF	10%	50V
C1247	1-163-131-00	CERAMIC CHIP	390PF	10%	50V
C1251	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1252	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C1253	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C1254	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C1255	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1256	1-163-022-00	CERAMIC CHIP	0.012MF	10%	50V
C1257	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C1258	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C1259	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1260	1-164-348-11	CERAMIC CHIP	0.12MF	10%	25V
C1261	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1262	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C1263	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C1264	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C1265	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1266	1-163-022-00	CERAMIC CHIP	0.012MF	10%	50V
C1267	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C1268	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C1269	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1270	1-164-348-11	CERAMIC CHIP	0.12MF	10%	25V
C1271	1-124-916-11	ELECT	22MF	20%	50V
C1272	1-124-910-11	ELECT	47MF	20%	50V
C2201	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C2202	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C2203	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2204	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2205	1-124-907-11	ELECT	10MF	20%	50V
C2206	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C2207	1-137-613-11	FILM	0.0018MF	2%	100V
C2208	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2209	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2210	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2211	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2212	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2213	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2214	1-124-910-11	ELECT	47MF	20%	50V
C2215	1-124-910-11	ELECT	47MF	20%	50V
C2216	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C2217	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C2218	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2219	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2220	1-124-925-11	ELECT	2.2MF	20%	50V
C2221	1-124-925-11	ELECT	2.2MF	20%	50V
C2222	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C2223	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C2224	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C2225	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C2226	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C2227	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C2228	1-124-925-11	ELECT	2.2MF	20%	50V
C2229	1-124-925-11	ELECT	2.2MF	20%	50V
C2230	1-136-177-00	FILM	1MF	5%	50V
C2231	1-136-177-00	FILM	1MF	5%	50V
C2232	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C2233	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C2234	1-124-907-11	ELECT	10MF	20%	50V
C2235	1-124-907-11	ELECT	10MF	20%	50V
C2236	1-124-478-11	ELECT	100MF	20%	25V
C2237	1-124-478-11	ELECT	100MF	20%	25V
C2238	1-136-165-00	FILM	0.1MF	5%	50V
C2239	1-136-165-00	FILM	0.1MF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN2201	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1201	8-719-914-43	DIODE DAN202K
D2201	8-719-914-42	DIODE DA204K

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1201	8-759-145-58	IC UPC4558C
IC1202	8-759-145-58	IC UPC4558C
IC1203	8-759-145-58	IC UPC4558C
IC1204	8-759-503-59	IC YM7128
IC1251	8-759-257-64	IC TDA7317
IC2201	8-759-267-97	IC TDA6812-5
IC2202	8-759-502-21	IC TDA2822M

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
JR2201	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR2202	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR2205	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR2206	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR2207	1-216-296-91	METAL GLAZE	0	5%	1/8W

A2 (KV-S2941A, S2941B, S2941D, S2941K)

A2 (KV-S2943E, S2942U)

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR2208	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2209	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2210	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2211	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2212	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR2213	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2214	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR2215	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR2216	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2217	1-216-296-91	METAL GLAZE	0	5%	1/8W	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L1201	1-408-421-00	INDUCTOR	100UH	
L1202	1-408-421-00	INDUCTOR	100UH	
L1251	1-408-421-00	INDUCTOR	100UH	
L2201	1-407-500-00	INDUCTOR	4.7MMH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1201	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1202	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1251	8-729-901-01	TRANSISTOR DTC144EK	
Q1252	8-729-901-01	TRANSISTOR DTC144EK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1201	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1202	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R1203	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1204	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1205	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1206	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R1207	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1208	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1209	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1210	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1211	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1212	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1214	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1215	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1216	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1217	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1218	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1219	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1220	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1221	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1222	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1223	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1224	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1225	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1226	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1227	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1228	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1229	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1230	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1233	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1234	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1235	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1236	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1237	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1238	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1240	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1241	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1242	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1243	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1245	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1246	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1251	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1252	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1253	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1254	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1255	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1256	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1257	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1258	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1259	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1260	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1261	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1262	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1263	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1264	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1265	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1266	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1267	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1268	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1269	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1270	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1271	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1272	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1290	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2201	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R2202	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R2203	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R2204	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R2205	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2206	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2207	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2208	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2209	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2210	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2211	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2216	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2217	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2218	1-249-389-11	CARBON	4.7	5%	1/4W	F
R2219	1-249-389-11	CARBON	4.7	5%	1/4W	F
R2220	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2221	1-216-091-00	METAL GLAZE	56K	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X1201	1-567-307-11	OSCILLATOR, CRYSTAL	

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	PART NO.	DESCRIPTION
	*A-1630-215-A	A2 BOARD, COMPLETE (KV-S2943E) ******************
	*A-1630-216-A	A2 BOARD, COMPLETE (KV-S2942U) ******************

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
BP1101	1-236-238-11	FILTER, BAND PASS (KV-S2942U)	
BP1101	1-239-047-11	FILTER, BAND PASS (KV-S2943E)	

A2 (KV-S2943E, S2942U)

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<CAPACITOR>				
C1101	1-126-101-11	ELECT	100MF	20%	16V	
C1102	1-126-101-11	ELECT	100MF	20%	16V	
C1103	1-163-077-91	CERAMIC CHIP	0.1MF		50V	
C1104	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C1105	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V	
C1106	1-163-383-11	CERAMIC CHIP	180PF	5%	50V	
C1107	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V	
C1108	1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C1109	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C1110	1-164-336-11	CERAMIC CHIP	0.33MF		25V	
C1111	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1112	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1113	1-124-477-11	ELECT	47MF	20%	16V	
C1114	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1115	1-124-477-11	ELECT	47MF	20%	16V	
C1116	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1117	1-164-222-11	CERAMIC CHIP	0.22MF		25V	
C1118	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C1119	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C1120	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C1121	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C1122	1-163-081-00	CERAMIC CHIP	0.22MF		25V	
C1123	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1124	1-124-477-11	ELECT	47MF	20%	16V	
C1125	1-124-477-11	ELECT	47MF	20%	16V	
C1126	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1127	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1128	1-124-477-11	ELECT	47MF	20%	16V	
C1129	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1130	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1131	1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C1132	1-163-077-91	CERAMIC CHIP	0.1MF		50V	
C1133	1-124-907-11	ELECT	10MF	20%	50V	
C1134	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1135	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1136	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C1137	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1138	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1139	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1140	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C1141	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C1142	1-163-057-00	CERAMIC CHIP	0.0068MF		50V	
C1143	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1144	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C1145	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C1146	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1147	1-124-477-11	ELECT	47MF	20%	16V	
C1148	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1149	1-124-477-11	ELECT	47MF	20%	16V	
C1150	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1151	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1152	1-124-477-11	ELECT	47MF	20%	16V	
C1153	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	
C1154	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1155	1-124-477-11	ELECT	47MF	20%	16V	
C1156	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1157	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1158	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1159	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
						(KV-S2942U)
C1203	1-124-927-11	ELECT	4.7MF	20%	50V	
C1204	1-124-927-11	ELECT	4.7MF	20%	50V	
C1205	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C1206	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1207	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1208	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V	
C1209	1-124-657-00	ELECT	10MF	20%	50V	
C1210	1-124-907-11	ELECT	10MF	20%	50V	
C1211	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1212	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1213	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1214	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C1215	1-124-910-11	ELECT	47MF	20%	50V	
C1216	1-124-927-11	ELECT	4.7MF	20%	50V	
C1217	1-124-927-11	ELECT	4.7MF	20%	50V	
C1218	1-124-927-11	ELECT	4.7MF	20%	50V	
C1219	1-124-927-11	ELECT	4.7MF	20%	50V	
C1220	1-124-927-11	ELECT	4.7MF	20%	50V	
C1221	1-124-927-11	ELECT	4.7MF	20%	50V	
C1222	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1223	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1224	1-124-927-11	ELECT	4.7MF	20%	50V	
C1225	1-124-927-11	ELECT	4.7MF	20%	50V	
C1226	1-124-910-11	ELECT	47MF	20%	50V	
C1227	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V	
C1228	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V	
C1230	1-126-101-11	ELECT	100MF	20%	16V	
C1231	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1232	1-126-101-11	ELECT	100MF	20%	16V	
C1233	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C1234	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1235	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1236	1-124-927-11	ELECT	4.7MF	20%	50V	
C1237	1-124-927-11	ELECT	4.7MF	20%	50V	
C1245	1-163-131-00	CERAMIC CHIP	390PF	10%	50V	
C1246	1-163-131-00	CERAMIC CHIP	390PF	10%	50V	
C1247	1-163-131-00	CERAMIC CHIP	390PF	10%	50V	
C1251	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1252	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V	
C1253	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1254	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1255	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1256	1-163-022-00	CERAMIC CHIP	0.012MF	10%	50V	
C1257	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V	
C1258	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V	
C1259	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1260	1-164-348-11	CERAMIC CHIP	0.12MF	10%	25V	
C1261	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1262	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V	
C1263	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1264	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1265	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1266	1-163-022-00	CERAMIC CHIP	0.012MF	10%	50V	
C1267	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V	
C1268	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V	
C1269	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1270	1-164-348-11	CERAMIC CHIP	0.12MF	10%	25V	
C1271	1-124-916-11	ELECT	22MF	20%	50V	
C1272	1-124-910-11	ELECT	47MF	20%	50V	
C2201	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V	
C2202	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V	
C2203	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
C2204	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
C2205	1-124-907-11	ELECT	10MF	20%	50V	
C2206	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	

A2 (KV-S2943E, S2942U)

REF.NO.	PART NO.	DESCRIPTION	REMARK
C2207	1-137-613-11	FILM 0.0018MF 2%	100V
C2208	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C2209	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C2210	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C2211	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C2212	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C2213	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C2214	1-124-910-11	ELECT 47MF 20%	50V
C2215	1-124-910-11	ELECT 47MF 20%	50V
C2216	1-163-019-00	CERAMIC CHIP 0.0068MF 10%	50V
C2217	1-163-019-00	CERAMIC CHIP 0.0068MF 10%	50V
C2218	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C2219	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C2220	1-124-925-11	ELECT 2.2MF 20%	50V
C2221	1-124-925-11	ELECT 2.2MF 20%	50V
C2222	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C2223	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C2224	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C2225	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C2226	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C2227	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C2228	1-124-925-11	ELECT 2.2MF 20%	50V
C2229	1-124-925-11	ELECT 2.2MF 20%	50V
C2230	1-136-177-00	FILM 1MF 5%	50V
C2231	1-136-177-00	FILM 1MF 5%	50V
C2232	1-164-182-11	CERAMIC CHIP 0.0033MF 10%	50V
C2233	1-163-007-11	CERAMIC CHIP 680PF 10%	50V
C2234	1-124-907-11	ELECT 10MF 20%	50V
C2235	1-124-907-11	ELECT 10MF 20%	50V
C2236	1-124-478-11	ELECT 100MF 20%	25V
C2237	1-124-478-11	ELECT 100MF 20%	25V
C2238	1-136-165-00	FILM 0.1MF 5%	50V
C2239	1-136-165-00	FILM 0.1MF 5%	50V

<TRAP CERAMIC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CF1101	1-409-333-00	TRAP, CERAMIC (6.0MHZ)	(KV-S2942U)
CF1102	1-404-134-00	TRAP, CERAMIC (5.5MHZ)	(KV-S2943E)

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN2201	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1101	8-719-914-43	DIODE DAN202K	
D1102	8-719-027-70	DIODE 1SV217-TPH3	
D1103	8-719-820-71	DIODE 1SV214	
D1201	8-719-914-43	DIODE DAN202K	
D2201	8-719-914-42	DIODE DA204K	

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB1101	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB1104	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB1105	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1101	8-759-511-88	IC TDA8732	
IC1102	8-759-184-28	IC SAA7282-ZP	
IC1201	8-759-145-58	IC UPC4558C	
IC1202	8-759-145-58	IC UPC4558C	
IC1203	8-759-145-58	IC UPC4558C	
IC1204	8-759-503-59	IC YM7128	
IC1251	8-759-257-64	IC TDA7317	
IC2201	8-759-267-97	IC TDA6812-5	
IC2202	8-759-502-21	IC TDA2822M	

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR1101	1-216-296-91	METAL GLAZE 0 5% 1/8W	(KV-S2943E)
JR2205	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2206	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2207	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR2208	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2209	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2210	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2211	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2212	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR2213	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2214	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR2215	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR2216	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2217	1-216-296-91	METAL GLAZE 0 5% 1/8W	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1101	1-408-405-00	INDUCTOR 4.7UH	
L1102	1-408-405-00	INDUCTOR 4.7UH	
L1103	1-410-119-11	INDUCTOR 1MMH	
L1104	1-410-119-11	INDUCTOR 1MMH	
L1105	1-408-411-00	INDUCTOR 15UH	(KV-S2942U)
L1201	1-408-421-00	INDUCTOR 100UH	
L1202	1-408-421-00	INDUCTOR 100UH	
L1251	1-408-421-00	INDUCTOR 100UH	
L2201	1-407-500-00	INDUCTOR 4.7MMH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1101	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1102	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1103	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1104	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1105	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1106	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1108	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1201	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1202	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1251	8-729-901-01	TRANSISTOR DTC144EK	
Q1252	8-729-901-01	TRANSISTOR DTC144EK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1101	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R1102	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1103	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1104	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1105	1-216-005-00	METAL GLAZE 15 5% 1/10W	
R1106	1-216-036-00	METAL GLAZE 300 5% 1/10W	
R1107	1-216-042-00	METAL GLAZE 510 5% 1/10W	
R1108	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R1109	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R1110	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R1111	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1112	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R1113	1-216-001-00	METAL GLAZE 10 5% 1/10W	

A2 (KV-S2943E, S2942U)

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1114	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1115	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1116	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1117	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1118	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1119	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1120	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1121	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1122	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R1123	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R1124	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1125	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1126	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1127	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1128	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1129	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1130	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1131	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1132	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1133	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1134	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W	
R1135	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1136	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1137	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1138	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1139	1-216-005-00	METAL GLAZE	15	5%	1/10W	
R1140	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1141	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1142	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1144	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1145	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1146	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1147	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1148	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1149	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1150	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1151	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1152	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1153	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1154	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1201	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1202	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R1203	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1204	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1205	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1206	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R1207	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1208	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1209	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1210	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1211	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1212	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1214	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1215	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1216	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1217	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1218	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1219	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1220	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1221	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1222	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1223	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1224	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1225	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1226	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1227	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1228	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1229	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1230	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1233	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1234	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1235	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1236	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1237	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1238	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1240	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1241	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1242	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1243	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1245	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1246	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1251	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1252	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1253	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1254	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1255	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1256	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1257	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1258	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1259	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1260	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1261	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1262	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1263	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1264	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1265	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1266	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1267	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1268	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1269	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1270	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1271	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1272	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1290	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2201	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R2202	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R2203	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R2204	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R2205	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2206	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2207	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2208	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2209	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2210	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2211	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2216	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2217	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2218	1-249-389-11	CARBON	4.7	5%	1/4W	F
R2219	1-249-389-11	CARBON	4.7	5%	1/4W	F
R2220	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2221	1-216-091-00	METAL GLAZE	56K	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X1101	1-579-689-21	VIBRATOR, CRYSTAL	
X1102	1-579-282-21	VIBRATOR, CRYSTAL	(KV-S2943E)
X1102	1-579-283-11	VIBRATOR, CRYSTAL	(KV-S2942U)
X1201	1-567-307-11	OSCILLATOR, CRYSTAL	

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*A-1632-172-A A BOARD, COMPLETE
****
(KV-S2941A,S2941D,S2943E,S2941K)

*A-1632-187-A A BOARD, COMPLETE (KV-S2941B)
****

*A-1632-188-A A BOARD, COMPLETE (KV-S2942U)
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C071	1-126-803-11	ELECT	47MF	20%	10V
C072	1-124-120-11	ELECT	220MF	20%	16V
C073	1-126-101-11	ELECT	100MF	20%	16V
C074	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C103	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C104	1-124-910-11	ELECT	47MF	20%	50V
C105	1-124-916-11	ELECT	22MF	20%	50V
C106	1-124-927-11	ELECT	4.7MF	20%	50V
C110	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C120	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C208	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C217	1-124-925-11	ELECT	2.2MF	20%	50V
C218	1-124-925-11	ELECT	2.2MF	20%	50V
C231	1-164-346-11	CERAMIC CHIP	1MF		16V
C232	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C233	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C234	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C235	1-130-772-00	FILM	0.22MF	5%	63V
C236	1-124-618-11	ELECT	2200MF	20%	35V
C237	1-124-618-11	ELECT	2200MF	20%	35V
C238	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C239	1-130-772-00	FILM	0.22MF	5%	63V
C240	1-124-916-11	ELECT	22MF	20%	50V
C241	1-124-916-11	ELECT	22MF	20%	50V
C242	1-124-903-11	ELECT	1MF	20%	50V
C244	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C248	1-163-185-00	CERAMIC CHIP	150PF	5%	50V
C249	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C250	1-124-910-11	ELECT	47MF	20%	50V
C280	1-126-320-11	ELECT	10MF	20%	16V
C290	1-162-638-11	CERAMIC CHIP	1MF		16V
C682	1-126-101-11	ELECT	100MF	20%	16V
C683	1-124-478-11	ELECT	100MF	20%	25V
C684	1-126-101-11	ELECT	100MF	20%	16V
C685	1-124-478-11	ELECT	100MF	20%	25V
C1351	1-164-346-11	CERAMIC CHIP	1MF		16V
C1352	1-164-346-11	CERAMIC CHIP	1MF		16V
C1353	1-164-346-11	CERAMIC CHIP	1MF		16V
C1354	1-164-346-11	CERAMIC CHIP	1MF		16V
C1355	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C1356	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1357	1-124-120-11	ELECT	220MF	20%	16V
C1358	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C1359	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C1360	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1362	1-124-927-11	ELECT	4.7MF	20%	50V
C1363	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1364	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1365	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1366	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1368	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1370	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1373	1-164-336-11	CERAMIC CHIP	0.33MF		25V
C1374	1-124-903-11	ELECT	1MF	20%	50V
C1375	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1376	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1378	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C1379	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1380	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1381	1-124-903-11	ELECT	1MF	20%	50V
C1382	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1383	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C1384	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C1385	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1386	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1387	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1390	1-163-001-11	CERAMIC CHIP	220PF	10%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN105	*1-568-882-51	PIN, CONNECTOR 7P	
CN0001	*1-564-520-11	PLUG, CONNECTOR 5P	
CN0101	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0102	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0103	*1-564-513-11	PLUG, CONNECTOR 10P	
CN0104	1-564-511-11	PLUG, CONNECTOR 8P	
CN0106	*1-568-880-51	PIN, CONNECTOR 5P	(KV-S2941B)
CN0107	*1-568-879-11	PIN, CONNECTOR 4P	
CN0109	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0110	*1-568-882-51	PIN, CONNECTOR 7P	
CN0113	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0119	*1-568-880-51	PIN, CONNECTOR 5P	
CN0145	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0146	*1-564-514-11	PLUG, CONNECTOR 11P	
CN0150	*1-568-881-51	PIN, CONNECTOR 6P	
CN0151	*1-568-879-11	PIN, CONNECTOR 4P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D068	8-719-914-44	DIODE DAP202K
D069	8-719-914-44	DIODE DAP202K
D071	8-719-109-89	DIODE RD5.6ESB2
D073	8-719-109-89	DIODE RD5.6ESB2
D075	8-719-914-43	DIODE DAN202K
D077	8-719-914-43	DIODE DAN202K
D078	8-719-109-89	DIODE RD5.6ESB2
D079	8-719-109-89	DIODE RD5.6ESB2
D101	8-719-982-27	DIODE MTZJ-33C
D206	8-719-914-43	DIODE DAN202K
D207	8-719-901-33	DIODE 1SS133
D208	8-719-901-33	DIODE 1SS133
D209	8-719-901-33	DIODE 1SS133
D210	8-719-901-33	DIODE 1SS133
D211	8-719-901-33	DIODE 1SS133
D212	8-719-901-33	DIODE 1SS133
D213	8-719-914-43	DIODE DAN202K
D215	8-719-914-42	DIODE DA204K
D216	8-719-914-42	DIODE DA204K

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D681	8-719-914-44	DIODE DAP202K	
D682	8-719-110-03	DIODE RD7.5ESB2	
D683	8-719-109-89	DIODE RD5.6ESB2	
D1351	8-719-901-33	DIODE 1SS133	
D1352	8-719-914-43	DIODE DAN202K	
D1353	8-719-914-43	DIODE DAN202K	
D1354	8-719-914-43	DIODE DAN202K	
D1355	8-719-914-43	DIODE DAN202K	
D1356	8-719-914-43	DIODE DAN202K	
D1357	8-719-914-43	DIODE DAN202K	
D1358	8-719-914-43	DIODE DAN202K	
D1359	8-719-914-43	DIODE DAN202K	
		<IC>	
IC072	8-759-184-27	IC ST24C16CB1	
IC251	8-759-072-99	IC TDA2052	
	4-201-023-01	SPACER, INSULATING; IC251	
	4-202-373-01	SPRING, IC; IC251	
	4-812-134-00	RIVET NYLON, 3.5; IC251	
IC261	8-759-072-99	IC TDA2052	
	4-201-023-01	SPACER, INSULATING; IC261	
	4-202-373-01	SPRING, IC; IC261	
	4-812-134-00	RIVET NYLON, 3.5; IC261	
IC681	8-749-921-21	IC SI-3120C	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC681	
IC682	8-749-920-43	IC SI-3050CA	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC682	
IC684	8-759-701-59	IC NJM78M09FA	
	*4-368-683-21	SPRING, TRANSISTOR; IC684	
IC685	8-759-510-52	IC TEA7605	
IC1351	8-759-275-36	IC TDA4780	
IC1352	8-759-007-21	IC UPD4053BC	
IC1353	8-759-145-58	IC UPC4558C	
IC1354	8-759-103-93	IC UPC393	
		<IF BLOCK>	
IFB101	1-466-733-11	IF BLOCK (IFH-389) (KV-S2941A,S2941D,S2943E,S2941K)	
IFB101	1-466-734-11	IF BLOCK (IFH-395) (KV-S2942U)	
IFB101	1-466-735-11	IF BLOCK (IFH-389F) (KV-S2941B)	
		<JUMPER RESISTOR>	
JR110	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR111	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR113	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR114	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR271	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR272	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1351	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1352	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1353	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1355	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1356	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-S2941A,S2941D,S2943E,S2941K)	
JR1357	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1358	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR1359	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR1360	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR1361	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR1362	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR1363	1-216-296-91	METAL GLAZE 0 5% 1/8W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>	
L101	1-412-546-41	INDUCTOR 560UH	
L1351	1-216-295-00	METAL GLAZE 0 5% 1/10W	
L1352	1-216-295-00	METAL GLAZE 0 5% 1/10W	
L1353	1-408-403-00	INDUCTOR 3.3UH	
L1354	1-408-403-00	INDUCTOR 3.3UH	
L1355	1-408-403-00	INDUCTOR 3.3UH	
		<TRANSISTOR>	
Q071	8-729-901-00	TRANSISTOR DTC124EK	
Q101	8-729-216-22	TRANSISTOR 2SA1162-G	
Q102	8-729-901-00	TRANSISTOR DTC124EK	
Q103	8-729-901-00	TRANSISTOR DTC124EK	
Q105	8-729-216-22	TRANSISTOR 2SA1162-G	
Q107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q108	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q201	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q202	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q203	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q209	8-729-216-22	TRANSISTOR 2SA1162-G	
Q210	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q681	8-729-140-96	TRANSISTOR 2SD774-34	
Q682	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q683	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1351	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1358	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1359	8-729-931-02	TRANSISTOR 2SC2413K-Q	
Q1360	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1361	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1362	8-729-900-53	TRANSISTOR DTC114EK	
Q1363	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<RESISTOR>	
R071	1-249-413-11	CARBON 470 5% 1/4W	
R072	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R073	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R074	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R076	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R077	1-216-025-00	METAL GLAZE 100 5% 1/10W (KV-S2941A,S2941B,S2941D,S2943E,S2941K)	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W (KV-S2941A,S2941B,S2941D,S2943E,S2941K)	
R102	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R103	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R105	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R108	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R109	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R110	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R111	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R115	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R116	1-215-901-00	METAL OXIDE 33K 5% 2W	F
R117	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R118	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R119	1-216-025-00	METAL GLAZE 100 5% 1/10W (KV-S2941A,S2941B,S2941D,S2943E,S2941K)	
R123	1-216-295-00	METAL GLAZE 0 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R201	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R202	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R210	1-247-734-11	CARBON	39	5%	1/2W	
R211	1-247-734-11	CARBON	39	5%	1/2W	
R212	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R216	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R217	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R218	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R221	1-211-771-71	FUSIBLE	4.7	5%	1/4W	F
R222	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R223	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R224	1-249-433-11	CARBON	22K	5%	1/4W	
R225	1-211-771-71	FUSIBLE	4.7	5%	1/4W	F
R226	1-249-412-11	CARBON	390	5%	1/4W	
R227	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R228	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R229	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R230	1-216-246-91	METAL GLAZE	100K	5%	1/8W	
R231	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R232	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R233	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R234	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R235	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R236	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R239	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R241	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R242	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R244	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R245	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R246	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R248	1-216-025-00	METAL GLAZE	100	5%	1/10W	
		(KV-S2941A,S2941B,S2941D,S2943E,S2941K)				
R250	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R251	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R252	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R254	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R255	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R256	1-247-807-31	CARBON	100	5%	1/4W	
R257	1-247-807-31	CARBON	100	5%	1/4W	
R258	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R259	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R260	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R294	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R295	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R296	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R623	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R685	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R691	1-249-417-11	CARBON	1K	5%	1/4W	F
R692	1-216-385-11	METAL OXIDE	0.47	5%	3W	F
R693	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R694	1-216-471-71	METAL OXIDE	27	5%	3W	F
R695	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R696	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R697	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1354	1-216-025-00	METAL GLAZE	100	5%	1/10W	
		(KV-S2941A,S2941B,S2941D,S2943E,S2941K)				
R1355	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R1356	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1357	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1358	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1359	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1360	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1362	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1363	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1364	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1365	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1366	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1367	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1368	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1369	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1370	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1371	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1372	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1373	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1374	1-247-897-11	CARBON	560K	5%	1/4W	
R1375	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1376	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1377	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1378	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1379	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1380	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1381	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1382	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1383	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1384	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1385	1-216-025-00	METAL GLAZE	100	5%	1/10W	
		(KV-S2941A,S2941B,S2941D,S2943E,S2941K)				
R1386	1-216-025-00	METAL GLAZE	100	5%	1/10W	
		(KV-S2941A,S2941B,S2941D,S2943E,S2941K)				
R1387	1-216-025-00	METAL GLAZE	100	5%	1/10W	
		(KV-S2941A,S2941B,S2941D,S2943E,S2941K)				
R1388	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1389	1-216-025-00	METAL GLAZE	100	5%	1/10W	
		(KV-S2941A,S2941B,S2941D,S2943E,S2941K)				
R1390	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1391	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1392	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1393	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1394	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1395	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1396	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1397	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1399	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R2301	1-216-025-00	METAL GLAZE	100	5%	1/10W	
		(KV-S2941A,S2941B,S2941D,S2943E,S2941K)				
R2302	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R2303	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2304	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2305	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R2306	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R2307	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2308	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2309	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2310	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R2311	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2314	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2316	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2318	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2320	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R2321	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2322	1-216-023-00	METAL GLAZE	82	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

A IF (KV-S2941A, S2941D, S2943E, S2941K)

REF.NO.	PART NO.	DESCRIPTION	REMARK
R2361	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
		<VARIABLE RESISTOR>	
RV101	1-241-760-21	RES, ADJ, CERMET 470	
		<TUNER>	
TU101⚠	1-693-184-11	TUNER (UP44C) (KV-S2942U)	
TU101⚠	1-693-185-11	TUNER (UV916H) (KV-S2941A,S2941B,S2941D,S2943E,S2941K)	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-466-733-11	IF BLOCK (IFH-389) ****************** (KV-S2941A,S2941D,S2943E,S2941K)	
		<CAPACITOR>	
C101	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C102	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C103	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C104	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C105	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C106	1-124-477-11	ELECT 47MF 20% 16V	
C107	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C108	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C109	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C112	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C113	1-163-101-00	CERAMIC CHIP 22PF 5% 50V	
C114	1-124-477-11	ELECT 47MF 20% 16V	
C115	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C116	1-164-346-11	CERAMIC CHIP 1MF 16V	
C118	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C119	1-163-369-11	CERAMIC CHIP 47PF 5% 50V	
C121	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C122	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C123	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C124	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C130	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C131	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
C133	1-124-477-11	ELECT 47MF 20% 16V	
C152	1-164-337-11	CERAMIC CHIP 2.2MF 16V	
C153	1-164-337-11	CERAMIC CHIP 2.2MF 16V	
C154	1-164-337-11	CERAMIC CHIP 2.2MF 16V	
C155	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C156	1-124-477-11	ELECT 47MF 20% 16V	
C161	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C162	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C163	1-164-346-11	CERAMIC CHIP 1MF 16V	
C164	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C165	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C166	1-124-477-11	ELECT 47MF 20% 16V	
C167	1-163-213-00	CERAMIC CHIP 0.0022MF 5% 50V	
C168	1-164-346-11	CERAMIC CHIP 1MF 16V	
C170	1-124-477-11	ELECT 47MF 20% 16V	
C171	1-124-477-11	ELECT 47MF 20% 16V	
C172	1-124-477-11	ELECT 47MF 20% 16V	
C173	1-124-477-11	ELECT 47MF 20% 16V	
		<FILTER>	
CF2	1-527-839-00	FILTER, CERAMIC	
CF3	1-527-840-00	FILTER, CERAMIC	
CF4	1-567-570-11	FILTER, CERAMIC	
SWF1	1-579-658-11	FILTER, SAWTOOTH WAVE	
		<CONNECTOR>	
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	
		<TRIMMER>	
CT1	1-404-801-11	TRAP, CERAMIC	
		<DIODE>	
D161	8-719-400-18	DIODE MA152WK	
		<IC>	
IC1	8-759-070-76	IC M52308SP	
IC2	8-759-070-71	IC TDA9820	
IC3	8-759-514-54	IC BA7046	
		<COIL>	
L101	1-408-421-00	INDUCTOR 100UH	
L102	1-408-419-00	INDUCTOR 68UH	
L103	1-408-419-00	INDUCTOR 68UH	
L104	1-408-408-00	INDUCTOR 8.2UH	
L121	1-408-413-00	INDUCTOR 22UH	
L122	1-408-420-00	INDUCTOR 82UH	
L142	1-410-790-41	INDUCTOR 0.56UH	
L151	1-408-419-00	INDUCTOR 68UH	
L161	1-408-419-00	INDUCTOR 68UH	
		<TRANSISTOR>	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-216-22	TRANSISTOR 2SA1162-G	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
Q170	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q171	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q172	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q173	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
JR2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR7	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR11	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR14	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR20	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR21	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR23	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR24	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR25	1-216-296-00	METAL GLAZE 0 5% 1/8W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR29	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR30	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR33	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR38	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR39	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR40	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R101	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R102	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R103	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R104	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R106	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R107	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R108	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R110	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R113	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R114	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R115	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R116	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R117	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R118	1-216-117-00	METAL GLAZE 680K 5% 1/10W	
R119	1-216-240-00	METAL GLAZE 56K 5% 1/8W	
R120	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R121	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R122	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R123	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R124	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R125	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R127	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R130	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R131	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R132	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R133	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R134	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R135	1-216-198-00	METAL GLAZE 1K 5% 1/8W	
R150	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R151	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R152	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R153	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R154	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R155	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R156	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R157	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R159	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R160	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R161	1-218-755-11	METAL CHIP 130K 0.50% 1/10W	
R162	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R163	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R164	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R165	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R166	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R167	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R168	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R169	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R170	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R171	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R172	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R173	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R174	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R175	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R176	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R177	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R178	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R179	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R180	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R181	1-216-037-00	METAL GLAZE 330 5% 1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV1	1-241-121-11	RES, ADJ, CARBON 4.7K	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T4	1-416-017-21	COIL	
T5	1-416-018-21	COIL	

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1-466-734-11 IF BLOCK (IFH-395) (KV-S2942U)
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C101	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C102	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C103	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C104	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C105	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C106	1-124-477-11	ELECT 47MF 20% 16V	
C107	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C108	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C109	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C112	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C113	1-163-101-00	CERAMIC CHIP 22PF 5% 50V	
C114	1-124-477-11	ELECT 47MF 20% 16V	
C115	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C116	1-164-346-11	CERAMIC CHIP 1MF 16V	
C118	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C119	1-163-369-11	CERAMIC CHIP 47PF 5% 50V	
C122	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
C130	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C131	1-163-224-11	CERAMIC CHIP 7PF 0.25PF 50V	
C133	1-124-477-11	ELECT 47MF 20% 16V	
C161	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C162	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C163	1-164-346-11	CERAMIC CHIP 1MF 16V	
C164	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C165	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C166	1-124-477-11	ELECT 47MF 20% 16V	
C167	1-163-213-00	CERAMIC CHIP 0.0022MF 5% 50V	
C168	1-164-346-11	CERAMIC CHIP 1MF 16V	
C170	1-124-477-11	ELECT 47MF 20% 16V	
C171	1-124-477-11	ELECT 47MF 20% 16V	

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CD1	1-579-657-21	DISCRIMINATOR, CERAMIC	
CF1	1-567-569-11	FILTER, CERAMIC	
SWF1	1-579-659-11	FILTER, SAWTOOTH WAVE	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	

<TRIMMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CT1	1-409-333-00	TRAP, CERAMIC (6.0MHZ)	

IF (KV-S2942U) IF (KV-S2941B)

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D161	8-719-400-18	DIODE MA152WK	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-070-76	IC M52308SP	
IC3	8-759-514-54	IC BA7046	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L101	1-408-414-00	INDUCTOR 27UH	
L102	1-408-419-00	INDUCTOR 68UH	
L103	1-408-419-00	INDUCTOR 68UH	
L104	1-408-406-00	INDUCTOR 5.6UH	
L105	1-408-410-00	INDUCTOR 12UH	
L142	1-410-790-41	INDUCTOR 0.56UH	
L161	1-408-419-00	INDUCTOR 68UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-216-22	TRANSISTOR 2SA1162-G	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
Q172	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q173	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR1	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR7	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR10	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR11	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR12	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR13	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
JR14	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR20	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR21	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR23	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR24	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR25	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR29	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR30	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR33	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR38	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR39	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR40	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR41	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR42	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R101	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R102	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R103	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R104	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R105	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R106	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R107	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R108	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R110	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R112	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R113	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R114	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R115	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R116	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R117	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R118	1-216-117-00	METAL GLAZE 680K 5% 1/10W	
R119	1-216-240-00	METAL GLAZE 56K 5% 1/8W	
R120	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R121	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R122	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R123	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R130	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R131	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R132	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R133	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R134	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R135	1-216-198-00	METAL GLAZE 1K 5% 1/8W	
R153	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R159	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R160	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R161	1-218-755-11	METAL CHIP 130K 0.50% 1/10W	
R162	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R163	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R164	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R165	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R166	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R167	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R168	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R169	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R175	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R176	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R177	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R178	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R179	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R181	1-216-037-00	METAL GLAZE 330 5% 1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV1	1-241-121-11	RES, ADJ, CARBON 4.7K	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T4	1-416-017-21	COIL	
T5	1-416-018-21	COIL	

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1-466-735-11 IF BLOCK (IFH-389F) (KV-S2941B)
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C2	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C3	1-124-903-11	ELECT 1MF 20% 50V	
C4	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C5	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C6	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C7	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	

IF (KV-S2941B)

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C9	1-124-916-11	ELECT	22MF	20%	25V
C10	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C11	1-124-477-11	ELECT	47MF	20%	16V
C13	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C14	1-124-477-11	ELECT	47MF	20%	16V
C15	1-124-903-11	ELECT	1MF	20%	50V
C16	1-163-061-00	CERAMIC CHIP	0.015MF	10%	50V
C17	1-162-638-11	CERAMIC CHIP	1MF		16V
C18	1-162-638-11	CERAMIC CHIP	1MF		16V
C19	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C20	1-124-902-00	ELECT	0.47MF	20%	50V
C21	1-124-903-11	ELECT	1MF	20%	50V
C22	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C23	1-124-902-00	ELECT	0.47MF	20%	50V
C24	1-164-506-11	CERAMIC CHIP	4.7MF		16V
C25	1-124-477-11	ELECT	47MF	20%	16V
C26	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C27	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C28	1-124-477-11	ELECT	47MF	20%	16V
C33	1-124-907-11	ELECT	10MF	20%	50V
C34	1-124-907-11	ELECT	10MF	20%	50V
C35	1-124-925-11	ELECT	2.2MF	20%	50V
C36	1-124-477-11	ELECT	47MF	20%	16V
C37	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C38	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C40	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C71	1-124-477-11	ELECT	47MF	20%	16V
C72	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C80	1-124-477-11	ELECT	47MF	20%	16V
C83	1-124-477-11	ELECT	47MF	20%	16V
C84	1-124-477-11	ELECT	47MF	20%	16V
C85	1-124-477-11	ELECT	47MF	20%	16V
C86	1-124-477-11	ELECT	47MF	20%	16V
C87	1-124-477-11	ELECT	47MF	20%	16V
C91	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C95	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C101	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C102	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C104	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C105	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C106	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C121	1-126-176-11	ELECT	220MF	20%	10V
C122	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C131	1-126-099-11	ELECT	2.2MF	20%	35V

<FILTER>

CF1	1-527-839-00	FILTER, CERAMIC
CF2	1-567-569-11	FILTER, CERAMIC
CF3	1-527-840-00	FILTER, CERAMIC
CF4	1-567-570-11	FILTER, CERAMIC
SWF1	1-579-662-11	FILTER, SURFACE WAVE
SWF3	1-404-711-11	SAWF
SWF4	1-579-660-11	FILTER, SAWTOOTH WAVE

<CONNECTOR>

CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P

<TRIMMER>

CT1	1-404-801-11	TRAP, CERAMIC
CT2	1-409-429-11	TRAP, CERAMIC
CV1	1-141-245-00	CAP, TRIMMER
CV2	1-141-245-00	CAP, TRIMMER
CV3	1-141-304-21	TRIMMER, CERAMIC

<DIODE>

D7	8-719-421-57	DIODE MA73-TX
D8	8-719-421-57	DIODE MA73-TX
D9	8-719-421-57	DIODE MA73-TX

<IC>

IC1	8-759-070-75	IC M52312SP
IC2	8-759-070-71	IC TDA9820
IC3	8-759-979-62	IC PCF8574

<COIL>

L1	1-408-419-00	INDUCTOR	68UH
L2	1-408-419-00	INDUCTOR	68UH
L3	1-408-407-00	INDUCTOR	6.8UH
L4	1-408-419-00	INDUCTOR	68UH
L5	1-408-419-00	INDUCTOR	68UH
L7	1-408-406-00	INDUCTOR	5.6UH
L9	1-408-419-00	INDUCTOR	68UH
L71	1-408-419-00	INDUCTOR	68UH
L101	1-408-399-00	INDUCTOR	1.5UH
L121	1-408-407-00	INDUCTOR	6.8UH

<TRANSISTOR>

Q1	8-729-907-06	TRANSISTOR BF199-AMMO
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q5	8-729-115-10	TRANSISTOR 2SK105A-10
Q6	8-729-900-52	TRANSISTOR DTC114YK
Q7	8-729-216-22	TRANSISTOR 2SA1162-G
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q10	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q11	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q12	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q13	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q14	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q15	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q16	8-729-216-22	TRANSISTOR 2SA1162-G
Q101	8-729-104-80	TRANSISTOR 2SC3355
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6

<RESISTOR>

JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR5	1-216-296-00	METAL GLAZE	0	5%	1/8W
R1	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R3	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R4	1-216-041-00	METAL GLAZE	470	5%	1/10W
R5	1-216-021-00	METAL GLAZE	68	5%	1/10W
R6	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R8	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R9	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R10	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R11	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R24	1-216-280-00	METAL GLAZE	2.7M	5%	1/8W
R25	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W

IF (KV-S2941B) **M3**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R26	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R27	1-216-266-00	METAL GLAZE	680K	5%	1/8W	
R28	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R29	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R30	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R31	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R32	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R33	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R34	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R35	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R36	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R37	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R38	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R39	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R40	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R42	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R43	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R44	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R45	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R46	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R47	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R48	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R49	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R53	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R54	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R55	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R57	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R58	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R59	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R60	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R61	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R63	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R71	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R72	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R73	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R74	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R75	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R76	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R77	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R81	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R82	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R83	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R84	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R85	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R86	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R87	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R88	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R89	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R90	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R91	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R92	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R93	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R94	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R95	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R96	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R97	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R98	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R99	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R100	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R102	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R103	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R104	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R105	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R122	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R123	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R124	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R125	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R302	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R303	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R304	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R306	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R307	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R308	1-216-037-00	METAL GLAZE	330	5%	1/10W	

<VARIABLE RESISTOR>

RV2	1-241-120-11	RES, ADJ, CARBON	2.2K

<TRANSFORMER>

T1	1-404-806-21	COIL
T3	1-416-012-11	COIL
T4	1-416-012-11	COIL
T5	1-402-720-11	COIL

<CRYSTAL>

X1	1-579-648-21	VIBRATOR, CERAMIC

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*A-1635-018-A M3 BOARD, COMPLETE
****

<CAPACITOR>

C001	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C002	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C003	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C004	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C007	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C010	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C011	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C012	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C014	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C016	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C017	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C018	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C019	1-124-916-11	ELECT	22MF	20%	50V
C020	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C022	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C023	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C024	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C025	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C026	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C032	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C042	1-162-638-11	CERAMIC CHIP	1MF		16V
C081	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C2001	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2002	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2003	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C2004	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C2005	1-163-038-00	CERAMIC CHIP	0.1MF		25V

REF.NO.	PART NO.	DESCRIPTION		REMARK
C2008	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2010	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2016	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2017	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2019	1-124-916-11	ELECT 22MF	20%	50V
C2020	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2021	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C2024	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C2025	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C2027	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2029	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C2031	1-163-031-11	CERAMIC CHIP 0.01MF		50V
		<VIBRATOR CERAMIC>		
CD001	1-579-126-11	VIBRATOR, CERAMIC		
		<CONNECTOR>		
CN1413	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P		
CN1432	1-564-511-11	PLUG, CONNECTOR 8P		
		<DIODE>		
D001	8-719-027-82	DIODE MA3039H-TX		
D2001	8-719-036-58	DIODE MA3030-H(TX)		
D2007	8-719-027-81	DIODE MA3027H-TX		
		<IC>		
IC001	8-759-168-52	IC SDA30C162-GEG		
IC002	8-759-278-59	IC TMS27PC010A15FMAE250		
	1-750-797-11	SOCKET, PLCC; IC002		
IC2002	8-759-262-58	IC SDA5273P-C22-GEG		
IC2003	8-759-188-60	IC MB81C4256A-70PSZG		
		<JUMPER RESISTOR>		
JR2002	1-216-295-00	METAL GLAZE 0 5% 1/10W		
		<COIL>		
L001	1-408-421-00	INDUCTOR 100UH		
L2001	1-410-674-31	INDUCTOR 82UH		
L2002	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		
		<TRANSISTOR>		
Q002	8-729-216-22	TRANSISTOR 2SA1162-G		
Q2002	8-729-920-74	TRANSISTOR 2SC2412K-QR		
Q2004	8-729-901-00	TRANSISTOR DTC124EK		
Q2005	8-729-920-74	TRANSISTOR 2SC2412K-QR		
Q2006	8-729-901-01	TRANSISTOR DTC144EK		
Q2008	8-729-901-00	TRANSISTOR DTC124EK		
		<RESISTOR>		
R001	1-216-025-00	METAL GLAZE 100 5% 1/10W		
R002	1-216-025-00	METAL GLAZE 100 5% 1/10W		
R003	1-216-049-00	METAL GLAZE 1K 5% 1/10W		
R004	1-216-049-00	METAL GLAZE 1K 5% 1/10W		
R005	1-216-295-00	METAL GLAZE 0 5% 1/10W		
R007	1-216-073-00	METAL GLAZE 10K 5% 1/10W		
R008	1-216-049-00	METAL GLAZE 1K 5% 1/10W		

REF.NO.	PART NO.	DESCRIPTION	REMARK
R010	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R011	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R012	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R013	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R014	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R016	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R017	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R018	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R019	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R020	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R021	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R022	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R023	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R024	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R025	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R026	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R032	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R033	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R034	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R035	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R038	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R049	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R050	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R051	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R052	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R054	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R057	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R060	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R067	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R068	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R069	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R081	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R082	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R083	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R084	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2001	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R2003	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R2004	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R2005	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2007	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2008	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2009	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R2010	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2011	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R2012	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R2013	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R2014	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R2015	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2022	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2023	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2024	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R2025	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2026	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R2028	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2030	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2031	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2032	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2036	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2037	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
		<CRYSTAL>	
X2001	1-579-965-21	VIBRATOR, CRYSTAL	

G

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

****

*A-1636-004-A G BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C601	1-136-165-00	FILM	0.1MF	5%	50V
C603	1-164-644-11	CERAMIC	330PF	10%	500V
C604	1-164-644-11	CERAMIC	330PF	10%	500V
C605	1-136-481-11	FILM	0.0022MF	2%	50V
C607	1-124-927-11	ELECT	4.7MF	20%	50V
C608	1-126-337-11	ELECT	22MF	20%	50V
C609	1-127-530-11	ELECT(SOLID)	22MF	20%	20V
C610	1-137-479-11	FILM	1MF	10%	400V
C611	1-130-777-00	FILM	0.1MF	5%	63V
C612	1-124-903-11	ELECT	1MF	20%	50V
C613	1-124-907-11	ELECT	10MF	20%	50V
C615	1-126-337-11	ELECT	22MF	20%	50V
C616	1-164-493-11	CERAMIC CHIP	0.047MF	10%	50V
C617	1-164-493-11	CERAMIC CHIP	0.047MF	10%	50V
C641	1-106-367-00	MYLAR	0.01MF	10%	400V
C650	1-124-618-11	ELECT	2200MF	20%	35V
C651	1-124-618-11	ELECT	2200MF	20%	35V
C654	1-107-892-91	ELECT	4700MF	20%	25V
C655	1-107-880-91	ELECT	4700MF	20%	10V
C656	1-164-644-11	CERAMIC	330PF	10%	500V
C657	1-107-995-11	ELECT	100MF	0	160V
C658	1-124-917-11	ELECT	33MF	20%	50V
C659	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C661	⚠1-136-527-12	FILM	0.47MF	20%	300V
C662	⚠1-136-415-51	FILM	0.33MF	20%	300V
C663	1-106-343-00	MYLAR	0.001MF	10%	100V
C664	1-102-002-00	CERAMIC	680PF	10%	500V
C666	1-124-479-11	ELECT	330MF	20%	25V
C667	1-126-337-11	ELECT	22MF	20%	50V
C668	1-124-122-11	ELECT	100MF	20%	50V
C670	1-137-218-11	FILM	0.012MF	5%	0
C671	1-137-218-11	FILM	0.012MF	5%	0
C672	⚠1-162-599-12	CERAMIC	0.0047MF		250V
C673	⚠1-162-599-12	CERAMIC	0.0047MF		250V
C674	1-125-555-11	ELECT	330MF	20%	400V
C675	1-124-910-11	ELECT	47MF	20%	50V
C676	1-162-599-12	CERAMIC	0.0047MF		250V
C678	⚠1-161-742-00	CERAMIC	0.0022MF	20%	400V
C680	⚠1-161-742-00	CERAMIC	0.0022MF	20%	400V
C681	1-126-337-11	ELECT	22MF	20%	50V
C682	1-124-120-11	ELECT	220MF	20%	25V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0005	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN0006	1-695-915-11	TAB (CONTACT)	
CN0007	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN0905	*1-568-882-51	PIN, CONNECTOR 7P	
CN0931	⚠*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN0947	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D602	8-719-979-58	DIODE EGP10D	
D603	8-719-110-49	DIODE RD18ESB2	
D604	8-719-110-49	DIODE RD18ESB2	
D605	8-719-901-33	DIODE 1SS133	
D606	8-719-110-49	DIODE RD18ESB2	
D607	8-719-979-58	DIODE EGP10D	
D608	8-719-110-49	DIODE RD18ESB2	
D610	8-719-983-38	DIODE MTZJ-T-77-36B	
D611	8-719-979-58	DIODE EGP10D	
D612	8-719-914-43	DIODE DAN202K	
D613	8-719-914-43	DIODE DAN202K	
D614	8-719-510-48	DIODE D1N20R	
D615	8-719-914-43	DIODE DAN202K	
D616	8-719-510-48	DIODE D1N20R	
D651	8-719-047-31	DIODE RBA-402L	
D653	8-719-312-47	DIODE RBA-406B	
	4-382-854-11	SCREW (M3X10), P, SW (+); D653	
D655	8-719-047-31	DIODE RBA-402L	
D657	8-719-914-43	DIODE DAN202K	
D658	8-719-510-48	DIODE D1N20R	
D661	8-719-901-33	DIODE 1SS133	
D662	8-719-914-43	DIODE DAN202K	
D663	8-719-510-53	DIODE D4SB60L	
D664	8-719-109-89	DIODE RD5.6ESB2	
D670	8-719-979-58	DIODE EGP10D	

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB603	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB604	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB605	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB654	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB655	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601	8-759-266-38	IC MC34025P	
IC602	8-759-185-47	IC IR2112	
IC603	8-749-923-44	IC SFH617G-1	
IC604	8-759-908-15	IC TL431CLP	
IC605	8-759-013-10	IC MC7815CT	
IC610	⚠1-810-051-11	POWER MODULE DM-48	

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
JR651	1-216-296-91	METAL GLAZE	0	5%	1/8W
JR652	1-216-296-91	METAL GLAZE	0	5%	1/8W

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L601	1-412-525-21	INDUCTOR	10UH	
L602	1-412-525-21	INDUCTOR	10UH	
L603	1-412-525-21	INDUCTOR	10UH	
L604	1-412-525-21	INDUCTOR	10UH	
L650	1-412-525-21	INDUCTOR	10UH	
L651	⚠1-412-525-21	INDUCTOR	10UH	

<LINE FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
LF661	1-424-436-11	TRANSFORMER, LINE FILTER	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS601	⚠1-532-686-91	LINK, IC 2.7A	
PS602	⚠1-532-686-91	LINK, IC 2.7A	
PS603	⚠1-532-686-91	LINK, IC 2.7A	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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Ne les remplacer que par une piece portant le numero specifie.

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q601	8-729-216-22	TRANSISTOR 2SA1162-G	
Q602	8-729-025-19	TRANSISTOR IRFI740G	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC602	
Q603	8-729-025-19	TRANSISTOR IRFI740G	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC603	
Q604	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q605	8-729-216-22	TRANSISTOR 2SA1162-G	
Q606	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q607	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q608	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q610	8-729-216-22	TRANSISTOR 2SA1162-G	
Q652	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q653	8-729-216-22	TRANSISTOR 2SA1162-G	
Q661	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R601	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R602	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R603	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R604	1-216-660-11	METAL CHIP	2.4K	0.50%	1/10W	
R605	1-216-236-11	METAL GLAZE	39K	5%	1/8W	
R606	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R607	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R608	1-249-393-11	CARBON	10	5%	1/4W	
R609	1-249-389-11	CARBON	4.7	5%	1/4W	F
R610	1-215-880-00	METAL OXIDE	10	5%	2W	F
R611	1-249-393-11	CARBON	10	5%	1/4W	
R612	1-249-389-11	CARBON	4.7	5%	1/4W	F
R613	1-211-968-11	WIREWOUND	0.56	10%	5W	F
R614	1-215-880-00	METAL OXIDE	10	5%	2W	F
R616	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R617	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R618	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R619	1-216-254-00	METAL GLAZE	220K	5%	1/8W	
R620	1-216-198-91	METAL GLAZE	1K	5%	1/8W	
R621	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R625	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R626	1-216-186-00	METAL GLAZE	330	5%	1/8W	
R628	1-249-441-11	CARBON	100K	5%	1/4W	
R632	1-249-441-11	CARBON	100K	5%	1/4W	
R633	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R634	1-216-186-00	METAL GLAZE	330	5%	1/8W	
R635	1-215-442-00	METAL	7.5K	1%	1/4W	
R636	1-215-431-00	METAL	2.7K	1%	1/4W	
R637	1-247-807-31	CARBON	100	5%	1/4W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R640	1-249-417-11	CARBON	1K	5%	1/4W	F
R641	1-247-903-00	CARBON	1M	5%	1/4W	
R642	1-247-903-00	CARBON	1M	5%	1/4W	
R643	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R651	1-215-880-00	METAL OXIDE	10	5%	2W	F
R658	1-249-415-11	CARBON	680	5%	1/4W	
R660	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R662	1-249-427-11	CARBON	6.8K	5%	1/4W	
R663	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R664	⚠1-205-998-11	WIREWOUND	1	5%	10W	
R665	⚠1-218-265-11	METAL GLAZE	8.2M	5%	1W	
R667	1-249-430-11	CARBON	12K	5%	1/4W	
R668	1-249-436-11	CARBON	39K	5%	1/4W	
R669	⚠1-205-998-11	WIREWOUND	1	5%	10W	
R670	⚠1-205-998-11	WIREWOUND	1	5%	10W	
R671	⚠1-214-937-00	CARBON	1M	5%	1/2W	
R673	1-215-429-00	METAL	2.2K	1%	1/4W	
R678	1-249-417-11	CARBON	1K	5%	1/4W	F
R679	1-216-198-91	METAL GLAZE	1K	5%	1/8W	
R680	1-249-417-11	CARBON	1K	5%	1/4W	F
R681	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R682	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R683	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R684	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R685	1-249-417-11	CARBON	1K	5%	1/4W	
R686	1-216-352-11	METAL OXIDE	1.8	5%	1W	F
R687	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R688	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R689	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R690	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R691	1-249-419-11	CARBON	1.5K	5%	1/4W	F

<RELAY>

REF.NO.	PART NO.	DESCRIPTION
RY661	⚠1-515-720-31	RELAY

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T650	⚠1-426-863-11	TRANSFORMER, CONVERTER (PIT)

<THERMISTOR>

REF.NO.	PART NO.	DESCRIPTION
THP661	⚠1-809-827-11	THERMISTOR, POSITIVE

****

*A-1638-044-A C BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C701	1-126-383-11	ELECT	0.33MF	20%	315V
C702	1-126-383-11	ELECT	0.33MF	20%	315V
C703	1-126-383-11	ELECT	0.33MF	20%	315V
C704	1-102-129-00	CERAMIC	0.01MF	10%	50V
C705	1-124-120-11	ELECT	220MF	20%	16V
C706	1-124-120-11	ELECT	220MF	20%	16V
C708	1-124-120-11	ELECT	220MF	20%	16V
C709	1-102-157-00	CERAMIC	560PF	10%	500V
C710	1-102-157-00	CERAMIC	560PF	10%	500V
C711	1-102-157-00	CERAMIC	560PF	10%	500V
C712	1-124-927-11	ELECT	4.7MF	20%	50V
C713	1-162-116-00	CERAMIC	680PF	10%	2KV
C714	1-162-115-00	CERAMIC	330PF	10%	2KV
C716	1-162-116-00	CERAMIC	680PF	10%	2KV
C717	1-102-129-00	CERAMIC	0.01MF	10%	50V
C718	1-102-129-00	CERAMIC	0.01MF	10%	50V
C719	1-164-346-11	CERAMIC CHIP	1MF		16V
C720	1-126-326-51	ELECT	10MF	20%	250V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN0004	1-695-915-11	TAB (CONTACT)
CN0403	*1-564-513-11	PLUG, CONNECTOR 10P
CN0421	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P

C **D6**

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<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D701	8-719-901-33	DIODE 1SS133	
D702	8-719-901-83	DIODE 1SS83	
D703	8-719-901-83	DIODE 1SS83	
D704	8-719-901-83	DIODE 1SS83	
D705	8-719-901-33	DIODE 1SS133	
D706	8-719-901-33	DIODE 1SS133	
D707	8-719-901-33	DIODE 1SS133	
D710	8-719-901-33	DIODE 1SS133	
D712	8-719-921-69	DIODE NTZJ-9.1	
D714	8-719-921-88	DIODE MTZJ-13B	
D715	8-719-911-19	DIODE 1SS119	
D716	8-719-911-19	DIODE 1SS119	
D717	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC703	8-759-073-90	IC TDA6111Q	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC703	
IC704	8-759-073-90	IC TDA6111Q	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC704	
IC705	8-759-073-90	IC TDA6111Q	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC705	

<SOCKET>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J701 ⚠	1-526-990-13	SOCKET, PICTURE TUBE	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L701	1-410-671-31	INDUCTOR	47UH	
L704	1-408-405-00	INDUCTOR	4.7UH	
L705	1-408-405-00	INDUCTOR	4.7UH	
L706	1-408-405-00	INDUCTOR	4.7UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q701	8-729-255-12	TRANSISTOR 2SC2551-0	
Q702	8-729-255-12	TRANSISTOR 2SC2551-0	
Q703	8-729-255-12	TRANSISTOR 2SC2551-0	
Q704	8-729-216-22	TRANSISTOR 2SA1162-G	
Q705	8-729-901-06	TRANSISTOR DT144EK	
Q706	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R701	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R702	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R703	1-249-435-11	CARBON	33K	5%	1/4W	
R704	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R705	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R706	1-249-433-11	CARBON	22K	5%	1/4W	
R707	1-249-433-11	CARBON	22K	5%	1/4W	
R708	1-249-433-11	CARBON	22K	5%	1/4W	
R709	1-249-416-11	CARBON	820	5%	1/4W	
R710	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R711	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R712	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R713	1-249-417-11	CARBON	1K	5%	1/4W	
R714	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R715	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R716	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R717	1-249-417-11	CARBON	1K	5%	1/4W	
R718	1-249-417-11	CARBON	1K	5%	1/4W	
R719	1-249-417-11	CARBON	1K	5%	1/4W	
R720	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R721	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R722	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R723	1-249-408-11	CARBON	180	5%	1/4W	
R724	1-249-408-11	CARBON	180	5%	1/4W	
R725	1-249-408-11	CARBON	180	5%	1/4W	
R726	1-202-565-81	SOLID	470	20%	1/2W	
R727	1-202-565-81	SOLID	470	20%	1/2W	
R728	1-202-565-81	SOLID	470	20%	1/2W	
R729	1-249-424-11	CARBON	3.9K	5%	1/4W	
R730	1-249-424-11	CARBON	3.9K	5%	1/4W	
R731	1-249-424-11	CARBON	3.9K	5%	1/4W	
R732	1-202-549-00	SOLID	100	20%	1/2W	
R733	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R734	1-202-549-00	SOLID	100	20%	1/2W	
R735	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R741	1-202-884-11	SOLID	820K	20%	1/2W	
R743	1-202-884-11	SOLID	820K	20%	1/2W	
R744	1-202-842-11	SOLID	220K	20%	1/2W	
R750	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R751	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R752	1-249-417-11	CARBON	1K	5%	1/4W	F
R753	1-215-911-11	METAL OXIDE	100	5%	3W	F

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
RV704	1-241-656-11	RES, ADJ, METAL FILM 110M	

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*A-1640-125-A D6 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2541	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2542	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C2543	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	
C2544	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	
C2545	1-164-222-11	CERAMIC CHIP 0.22MF		25V	
C2546	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C2547	1-163-020-00	CERAMIC CHIP 0.0082MF	10%	50V	
C2548	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C2549	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V	
C2550	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C2551	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C2554	1-163-011-11	CERAMIC CHIP 0.0015MF	10%	50V	
C2560	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	
C2563	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C2564	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C2565	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C2566	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C2567	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C2568	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C2569	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	
C2570	1-164-336-11	CERAMIC CHIP 0.33MF		25V	
C2573	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2583	1-124-477-11	ELECT 47MF	20%	25V	
C2590	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C2591	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V	
C2592	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2599	1-164-004-11	CERAMIC CHIP 0.1MF		10%		25V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN2044	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P
CN2050	*1-568-881-51	PIN, CONNECTOR 6P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D2551	8-719-914-44	DIODE DAP202K

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC2561	8-752-347-92	IC CXD2018Q
IC2562	8-759-998-98	IC LM358D
IC2563	8-759-708-05	IC NJM78L05A
IC2581	8-759-998-98	IC LM358D

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
JR2553	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR2554	1-216-295-00	METAL GLAZE	0	5%	1/10W

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L2561	1-408-409-00	INDUCTOR	10UH
L2562	1-408-409-00	INDUCTOR	10UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q2565	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q2566	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q2590	8-729-216-22	TRANSISTOR 2SA1162-G

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R2540	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R2541	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2542	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2543	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2544	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R2547	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R2548	1-216-295-00	METAL GLAZE	0	5%	1/10W
R2549	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R2550	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R2551	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2552	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R2553	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R2554	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2555	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2561	1-216-295-00	METAL GLAZE	0	5%	1/10W
R2564	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R2565	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R2566	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2567	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R2568	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R2575	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R2576	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2581	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R2582	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R2583	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R2584	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R2585	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R2586	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R2587	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R2589	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R2591	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R2592	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R2593	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2594	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R2595	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R2596	1-216-103-91	METAL GLAZE	180K	5%	1/10W
R2597	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2599	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2600	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R2601	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2602	1-216-105-00	METAL GLAZE	220K	5%	1/10W

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*A-1640-143-A D7 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C2701	1-124-907-11	ELECT	10MF	20%	50V
C2702	1-124-477-11	ELECT	47MF	20%	25V
C2703	1-124-477-11	ELECT	47MF	20%	25V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN2701	*1-564-506-11	PLUG, CONNECTOR 3P
CN2702	*1-564-506-11	PLUG, CONNECTOR 3P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D2701	8-719-914-44	DIODE DAP202K

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC2701	8-759-603-37	IC M5216P
IC2702	8-759-701-59	IC NJM78M09FA

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
JR2751	1-216-296-91	METAL GLAZE	0	5%	1/8W

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q2701	8-729-920-74	TRANSISTOR 2SC2412K-QR

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R2701	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2702	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2703	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2704	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2705	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2706	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2707	1-216-295-00	METAL GLAZE	0	5%	1/10W
R2708	1-216-073-00	METAL GLAZE	10K	5%	1/10W

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*A-1642-110-A D BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C801	1-124-347-00	ELECT	100MF	20%	160V
C802	1-136-207-11	FILM	0.047MF	10%	250V
C803	1-102-212-00	CERAMIC	820PF	10%	500V
C804	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C807	1-162-115-00	CERAMIC	330PF	10%	2KV
C808	1-162-116-00	CERAMIC	680PF	10%	2KV
C809	1-162-116-00	CERAMIC	680PF	10%	2KV
C810	1-137-102-11	FILM	0.022MF	10%	250V
C811	1-109-948-11	CAP, FILM	15000PF		
C812	1-136-315-61	FILM	0.047MF	5%	630V
C813	0-551-837-00	CAP, PP FILM			
C814	1-129-702-00	FILM	0.001MF	10%	400V
C815	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V
C816	0-551-837-00	CAP, PP FILM			
C819	1-136-189-00	FILM	0.1MF	10%	250V
C820	1-124-927-11	ELECT	4.7MF	20%	50V
C821	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C822	1-124-910-11	ELECT	47MF	20%	50V
C823	1-137-370-11	FILM	0.01MF	5%	50V
C824	1-162-117-00	CERAMIC	100PF	10%	500V
C825	1-124-790-11	ELECT	0.47MF	20%	100V
C826	1-124-910-11	ELECT	47MF	20%	50V
C833	1-130-471-00	FILM	0.001MF	5%	50V
C834	1-162-114-00	CERAMIC	0.0047MF		2KV
C835	1-123-950-00	ELECT	47MF	20%	250V
C836	1-102-228-00	CERAMIC	470PF	10%	500V
C837	1-102-228-00	CERAMIC	470PF	10%	500V
C838	1-102-228-00	CERAMIC	470PF	10%	500V
C839	1-124-480-11	ELECT	470MF	20%	25V
C840	1-124-480-11	ELECT	470MF	20%	25V
C841	1-106-375-12	MYLAR	0.022MF	10%	250V
C842	1-136-559-11	MYLAR	0.0047MF	10%	400V
C845	1-106-220-00	MYLAR	0.1MF	10%	100V
C855	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C860	1-137-370-11	FILM	0.01MF	5%	50V
C861	1-130-471-00	FILM	0.001MF	5%	50V
C862	1-124-907-11	ELECT	10MF	20%	50V
C863	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C871	1-130-777-00	FILM	0.1MF	5%	63V
C872	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C873	1-162-115-00	CERAMIC	330PF	10%	2KV
C874	1-164-625-11	CERAMIC	680PF	10%	500V
C890	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C891	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1502	1-124-903-11	ELECT	1MF	20%	50V
C1503	1-124-907-11	ELECT	10MF	20%	50V
C1504	1-124-122-11	ELECT	100MF	20%	50V
C1505	1-137-371-11	FILM	0.015MF	5%	50V
C1506	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1507	1-106-383-00	MYLAR	0.047MF	10%	100V
C1508	1-137-423-11	MYLAR	0.15MF	10%	100V
C1510	1-136-110-00	FILM	0.91MF	5%	200V
C1511	1-124-480-11	ELECT	470MF	20%	25V
C1512	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1513	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1514	1-124-480-11	ELECT	470MF	20%	25V
C1516	1-124-006-11	ELECT	10MF	20%	25V
C2502	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2503	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C2504	1-124-120-11	ELECT	220MF	20%	16V
C2505	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C2506	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C2507	1-124-903-11	ELECT	1MF	20%	50V
C2508	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2509	1-124-903-11	ELECT	1MF	20%	50V
C2511	1-163-002-11	CERAMIC CHIP	270PF	10%	50V
C2520	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2521	1-124-927-11	ELECT	4.7MF	20%	50V
C2522	1-124-927-11	ELECT	4.7MF	20%	50V
C2523	1-124-910-11	ELECT	47MF	20%	50V
C2528	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN0005	1-695-915-11	TAB (CONTACT)
CN0009	*1-564-506-11	PLUG, CONNECTOR 3P
CN0502	*1-564-506-11	PLUG, CONNECTOR 3P
CN0504	1-564-511-11	PLUG, CONNECTOR 8P
CN0521	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P
CN0523	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P
CN0544	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P
CN0546	*1-564-514-11	PLUG, CONNECTOR 11P
CN0547	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D802	8-719-979-99	DIODE ERD08M-15
	4-382-854-11	SCREW (M3X10), P, SW (+); D802
D803	8-719-043-14	DIODE ESAD39M-06C
	4-382-854-11	SCREW (M3X10), P, SW (+); D803
D804	8-719-971-20	DIODE ERC38-06
D805	8-719-908-03	DIODE GP08D
D806	8-719-908-03	DIODE GP08D
D807	8-719-914-43	DIODE DAN202K
D808	8-719-914-44	DIODE DAP202K
D810	8-719-018-82	DIODE RGP02-20EL-6394
D811	8-719-302-43	DIODE EL1Z
D812	8-719-302-43	DIODE EL1Z
D813	8-719-302-43	DIODE EL1Z
D814	8-719-979-85	DIODE EGP20G
D819	8-719-914-43	DIODE DAN202K
D860	8-719-914-44	DIODE DAP202K
D861	8-719-914-42	DIODE DA204K
D862	8-719-914-43	DIODE DAN202K
D863	8-719-914-43	DIODE DAN202K
D871	8-719-914-44	DIODE DAP202K
D1501	8-719-914-43	DIODE DAN202K
D1502	8-719-982-03	DIODE MTZJ-3.6A
D1503	8-719-908-03	DIODE GP08D
D2501	8-719-914-44	DIODE DAP202K
D2502	8-719-109-85	DIODE RD5.1ESB2
D2503	8-719-908-03	DIODE GP08D
D2507	8-719-914-44	DIODE DAP202K
D2508	8-719-914-43	DIODE DAN202K

<PLUG>

REF.NO.	PART NO.	DESCRIPTION
DY1	*1-568-536-11	PLUG (MINIATURE DY) 6P

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC801	8-759-103-93	IC UPC393C
IC1501	8-759-192-71	IC STV9379
	4-202-373-01	SPRING, IC; IC1501
	4-812-134-00	RIVET NYLON, 3.5; IC1501
IC2501	8-759-076-84	IC LA7851MK

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR1	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR3	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR6	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR7	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR10	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR11	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR12	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR13	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR14	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR501	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR502	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR503	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR504	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR505	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR506	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR507	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR508	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR509	1-216-296-91	METAL GLAZE 0 5% 1/8W	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L802	1-459-123-00	COIL,DUST CORE(PAC)	
L803	1-459-123-00	COIL,DUST CORE(PAC)	
L808	1-412-519-11	INDUCTOR 3.3UH	
L809	1-412-519-11	INDUCTOR 3.3UH	
L810	1-412-519-11	INDUCTOR 3.3UH	
L811	1-459-104-00	COIL, WITH CORE	
L813	1-459-104-00	COIL, WITH CORE	
L814	1-422-613-11	COIL, AIR CORE	
L816	1-408-947-00	INDUCTOR 2.2MMH	
L817	1-422-613-11	COIL, AIR CORE	
L818	1-459-123-00	COIL,DUST CORE(PAC)	
L1503	1-412-524-11	INDUCTOR 8.2UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q801	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q802	8-729-821-07	TRANSISTOR 2SC3997CA	
	4-200-399-01	SPACER, IC; Q802	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q802	
Q803	8-729-017-06	TRANSISTOR 2SC4793	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q803	
Q804	8-729-378-84	TRANSISTOR 2SD788-5	
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q806	8-729-903-29	TRANSISTOR DTA144TK	
Q860	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q861	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1501	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1502	8-729-901-01	TRANSISTOR DTC144EK	
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-901-01	TRANSISTOR DTC144EK	
Q1505	8-729-926-79	TRANSISTOR IRFIBC40	
Q2502	8-729-900-51	TRANSISTOR DTA114TK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R801	1-249-399-11	CARBON 33 5% 1/4W	F
R802	1-215-914-11	METAL OXIDE 330 5% 3W	F
R803	1-215-914-11	METAL OXIDE 330 5% 3W	F
R804	1-215-914-11	METAL OXIDE 330 5% 3W	F
R805	1-216-485-11	METAL OXIDE 5.6K 5% 3W	F
R806	1-249-411-11	CARBON 330 5% 1/4W	
R807	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R809	1-215-880-00	METAL OXIDE 10 5% 2W	F
R810	1-215-914-11	METAL OXIDE 330 5% 3W	F
R812	1-216-400-71	METAL OXIDE 8.2 5% 3W	F
R813	1-216-400-71	METAL OXIDE 8.2 5% 3W	F
R814	1-216-400-71	METAL OXIDE 8.2 5% 3W	F
R815	1-216-434-11	METAL OXIDE 1.8K 5% 1W	F
R816	1-249-377-11	CARBON 0.47 5% 1/4W	F
R817	1-249-377-11	CARBON 0.47 5% 1/4W	F
R818	1-249-377-11	CARBON 0.47 5% 1/4W	F
R819	1-249-377-11	CARBON 0.47 5% 1/4W	F
R820	1-214-907-00	METAL 56K 1% 1/2W	
R821	1-249-428-11	CARBON 8.2K 5% 1/4W	
R822	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R826	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R830	1-211-795-71	FUSIBLE 470 5% 1/4W	F
R831	1-215-915-11	METAL OXIDE 470 5% 3W	F
R833	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R834	1-202-842-11	SOLID 220K 20% 1/2W	
R835	1-216-230-00	METAL GLAZE 22K 5% 1/8W	
R837	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R838	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R839	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W	
R840	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R841	1-249-423-11	CARBON 3.3K 5% 1/4W	
R842	1-249-399-11	CARBON 33 5% 1/4W	F
R843	1-202-826-00	SOLID 4.7K 10% 1/2W	
R844	1-215-445-00	METAL 10K 1% 1/4W	
R845	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
R847	1-249-416-11	CARBON 820 5% 1/4W	
R848	1-215-477-00	METAL 220K 1% 1/4W	
R849	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R850	1-249-409-11	CARBON 220 5% 1/4W	
R851	1-216-374-71	METAL OXIDE 2.7 5% 2W	F
R852	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R853	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R855	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W	
R857	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R858	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R860	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R861	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R862	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R863	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
R864	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R865	1-216-208-00	METAL GLAZE 2.7K 5% 1/8W	
R866	1-249-389-11	CARBON 4.7 5% 1/4W	F
R871	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R872	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R873	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R890	1-216-256-00	METAL GLAZE 270K 5% 1/8W	
R891	1-216-103-91	METAL GLAZE 180K 5% 1/10W	
R892	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R893	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R894	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R899	1-249-377-11	CARBON 0.47 5% 1/4W	F
R1501	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R1502	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	

D **D2**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1504	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1508	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1510	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1511	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1512	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1515	1-215-461-00	METAL	47K	1%	1/4W	
R1516	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1517	⚠1-216-376-00	METAL OXIDE	3.9	5%	2W	F
R1518	⚠1-216-392-11	METAL OXIDE	1.8	5%	3W	F
R1519	⚠1-216-475-11	METAL OXIDE	120	5%	3W	F
R1520	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1521	1-249-424-11	CARBON	3.9K	5%	1/4W	
R2501	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2502	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W	
R2503	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2504	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R2505	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2506	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R2507	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R2508	1-216-678-11	METAL CHIP	13K	0.50%	1/10W	
R2509	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R2510	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R2511	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R2512	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2513	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2514	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R2515	1-216-246-91	METAL GLAZE	100K	5%	1/8W	
R2525	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2527	1-249-397-11	CARBON	22	5%	1/4W	F
R2529	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R2530	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2531	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

<VARIABLE RESISTOR>

RV1501	1-241-786-11	RES, ADJ, CARBON 22K
RV2501	1-241-763-11	RES, ADJ, CERMET 4.7K

<TRANSFORMER>

T801	1-437-090-00	HDT
T803	1-426-897-11	TRANSFORMER, FERRITE (PMT)
T804	1-426-939-11	HLT
T805	⚠8-598-943-00	TRANSFORMER ASSY, FLYBACK(NX-2661//U2B)
T806	1-413-059-00	TRANSFORMER, FERRITE (DFT)

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***A-1642-111-A D2 BOARD, COMPLETE**
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<CAPACITOR>

C1841	1-130-481-00	FILM	0.0068MF	5%	50V
C1844	1-106-367-00	MYLAR	0.01MF	10%	400V
C1845	1-106-220-00	MYLAR	0.1MF	10%	100V
C1851	1-124-910-11	ELECT	47MF	20%	50V
C1852	1-124-910-11	ELECT	47MF	20%	50V
C1853	1-124-907-11	ELECT	10MF	20%	50V
C1854	1-124-910-11	ELECT	47MF	20%	50V
C1855	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1856	1-124-907-11	ELECT	10MF	20%	50V
C1857	1-124-360-00	ELECT	1000MF	20%	16V
C1858	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C1859	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C1860	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C1861	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C1862	1-124-657-00	ELECT	10MF	20%	50V
C1863	1-129-720-00	FILM	0.033MF	5%	630V
C1868	1-162-318-11	CERAMIC	0.001MF	10%	500V
C1869	1-106-363-00	MYLAR	0.0068MF	10%	400V
C1892	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V

<CONNECTOR>

CN1823	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P
CN1841	*1-568-878-51	PIN, CONNECTOR 3P

<DIODE>

D1840	8-719-302-43	DIODE EL1Z
D1841	8-719-914-43	DIODE DAN202K
D1851	8-719-110-41	DIODE RD15ESB2
D1852	8-719-110-41	DIODE RD15ESB2
D1853	8-719-914-42	DIODE DA204K
D1856	8-719-914-43	DIODE DAN202K
D1867	8-719-302-43	DIODE EL1Z
D1868	8-719-302-43	DIODE EL1Z
D1882	8-719-109-89	DIODE RD5.6ESB2
D1883	8-719-109-89	DIODE RD5.6ESB2

<IC>

IC1851	8-759-708-05	IC NJM78L05A
IC1852	8-759-145-58	IC UPC4558C
IC1853	8-759-902-21	IC SN74LS221N

<JUMPER RESISTOR>

JR1851	1-216-295-00	METAL GLAZE	0	5%	1/10W

<COIL>

L1841	1-459-075-00	COIL,DYNAMIC CONVERSION CHOKE
L1843	1-459-104-00	COIL, WITH CORE
L1852	1-459-390-00	COIL (WITH CORE)

<IC LINK>

PS1851	⚠1-532-727-91	LINK, IC 0.25A
PS1852	⚠1-532-727-91	LINK, IC 0.25A

<TRANSISTOR>

Q1840	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1841	8-729-017-06	TRANSISTOR 2SC4793
Q1851	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1854	8-729-216-22	TRANSISTOR 2SA1162-G
Q1855	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1856	8-729-017-05	TRANSISTOR 2SA1837
Q1857	8-729-017-05	TRANSISTOR 2SA1837
	4-382-854-11	SCREW (M3X10), P, SW (+); Q1857
Q1858	8-729-017-06	TRANSISTOR 2SC4793
	4-382-854-11	SCREW (M3X10), P, SW (+); Q1857
Q1859	8-729-216-22	TRANSISTOR 2SA1162-G

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1860	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1861	8-729-017-06	TRANSISTOR 2SC4793	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1841	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R1842	1-260-111-11	CARBON 10K 5% 1/2W	
R1843	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1844	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1847	1-249-399-11	CARBON 33 5% 1/4W	F
R1848	1-215-875-11	METAL OXIDE 10K 5% 1W	F
R1849	1-260-111-11	CARBON 10K 5% 1/2W	
R1851	1-216-429-00	METAL OXIDE 270 5% 1W	F
R1852	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1853	1-216-684-91	METAL CHIP 24K 0.50% 1/10W	
R1854	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R1855	1-216-429-00	METAL OXIDE 270 5% 1W	F
R1856	1-216-474-11	METAL OXIDE 82 5% 3W	F
R1861	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1862	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1863	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1864	1-215-875-11	METAL OXIDE 10K 5% 1W	F
R1865	1-216-474-11	METAL OXIDE 82 5% 3W	F
R1866	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R1875	1-216-673-11	METAL CHIP 8.2K 0.50% 1/10W	
R1877	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R1878	1-260-092-11	CARBON 270 5% 1/2W	
R1881	1-260-092-11	CARBON 270 5% 1/2W	
R1885	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1894	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1895	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1896	1-215-867-00	METAL OXIDE 470 5% 1W	F
R1898	1-216-013-00	METAL GLAZE 33 5% 1/10W	
R1899	1-216-013-00	METAL GLAZE 33 5% 1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV1851	1-241-765-11	RES, ADJ, CERMET 22K	
RV1853	1-241-628-11	RES, ADJ, CARBON 2.2K	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T1851	1-423-786-11	TRANSFORMER, FERRITE (VPOT)	

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*A-1642-126-A E2 BOARD, COMPLETE (KV-S2941B)
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1	1-126-103-11	ELECT 470MF 20% 16V	
C2	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C3	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C4	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C5	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C6	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C7	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C8	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C10	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C11	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C12	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C13	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C14	1-124-903-11	ELECT 1MF 20% 50V	
C15	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C16	1-124-907-11	ELECT 10MF 20% 50V	
C17	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C18	1-163-119-00	CERAMIC CHIP 120PF 5% 50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN2	*1-568-880-51	PIN, CONNECTOR 5P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1	8-719-914-43	DIODE DAN202K	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-521-22	IC TDA4650/V4	
IC2	8-759-140-53	IC UPD4053BC	

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR1	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR3	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR5	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR101	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR104	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR105	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR106	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR107	1-216-296-91	METAL GLAZE 0 5% 1/8W	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1	1-408-421-00	INDUCTOR 100UH	
L2	1-404-554-11	COIL	
L3	1-404-554-11	COIL	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q5	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R2	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R3	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R4	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R5	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R6	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R7	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R8	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R9	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R10	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R11	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R12	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R13	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R14	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R16	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R17	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R18	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R19	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R20	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	

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*A-1644-048-A VM BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1701	1-124-119-00	ELECT	330MF	20%	16V	
C1704	1-161-830-00	CERAMIC	0.0047MF		500V	
C1705	1-124-120-11	ELECT	220MF	20%	16V	
C1706	1-123-935-00	ELECT	33MF	20%	160V	
C1707	1-124-907-11	ELECT	10MF	20%	50V	
C1708	1-163-075-00	CERAMIC CHIP	0.047MF		50V	
C1709	1-108-792-11	MYLAR	0.001MF	10%	50V	
C1710	1-137-036-91	FILM	0.01MF	10%	250V	
C1711	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1712	1-124-799-11	ELECT	2.2MF	20%	160V	
C1713	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1714	1-137-036-91	FILM	0.01MF	10%	250V	
C1716	1-124-907-11	ELECT	10MF	20%	50V	
C1717	1-102-824-00	CERAMIC	470PF	5%	50V	
C1718	1-124-120-11	ELECT	220MF	20%	16V	
C1719	1-124-907-11	ELECT	10MF	20%	50V	
C1722	1-102-980-00	CERAMIC	270PF	10%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1819*	1-568-880-51	PIN, CONNECTOR 5P	
CN1830*	1-568-878-51	PIN, CONNECTOR 3P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1701	8-719-914-43	DIODE DAN202K	
D1702	8-719-914-43	DIODE DAN202K	
D1703	8-719-914-44	DIODE DAP202K	
D1704	8-719-982-37	DIODE MTZJ-39C	
D1705	8-719-982-37	DIODE MTZJ-39C	
D1706	8-719-914-44	DIODE DAP202K	
D1707	8-719-914-44	DIODE DAP202K	

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR1701	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR1702	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR1703	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR1751	1-216-296-91	METAL GLAZE	0	5%	1/8W	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L1702	1-408-410-00	INDUCTOR	12UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1701	8-729-901-59	TRANSISTOR BF199	
Q1702	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1703	8-729-017-05	TRANSISTOR 2SA1837	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q1703	
Q1704	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1705	8-729-017-06	TRANSISTOR 2SC4793	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q1705	
Q1706	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1707	8-729-142-86	TRANSISTOR 2SC3733	
Q1708	8-729-901-59	TRANSISTOR BF199	
Q1709	8-729-255-12	TRANSISTOR 2SC2551-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1701	1-247-807-31	CARBON	100	5%	1/4W	
R1702	1-249-413-11	CARBON	470	5%	1/4W	
R1703	1-247-807-31	CARBON	100	5%	1/4W	
R1704	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1705	1-247-736-11	CARBON	56	5%	1/2W	F
R1706	1-249-414-11	CARBON	560	5%	1/4W	F
R1707	1-249-411-11	CARBON	330	5%	1/4W	
R1709	1-249-412-11	CARBON	390	5%	1/4W	
R1710	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1711	1-249-432-11	CARBON	18K	5%	1/4W	
R1712	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1713	1-249-436-11	CARBON	39K	5%	1/4W	
R1714	1-249-429-11	CARBON	10K	5%	1/4W	
R1715	1-216-476-11	METAL OXIDE	180	5%	3W	F
R1716	1-249-417-11	CARBON	1K	5%	1/4W	F
R1717	1-249-432-11	CARBON	18K	5%	1/4W	
R1718	1-249-412-11	CARBON	390	5%	1/4W	
R1719	1-249-416-11	CARBON	820	5%	1/4W	
R1720	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1721	1-249-414-11	CARBON	560	5%	1/4W	
R1722	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1723	1-249-429-11	CARBON	10K	5%	1/4W	
R1724	1-249-436-11	CARBON	39K	5%	1/4W	
R1725	1-249-413-11	CARBON	470	5%	1/4W	
R1726	1-249-410-11	CARBON	270	5%	1/4W	
R1727	1-249-402-11	CARBON	56	5%	1/4W	F
R1729	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1731	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1732	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1735	1-249-415-11	CARBON	680	5%	1/4W	
R1736	1-247-807-31	CARBON	100	5%	1/4W	
R1753	1-249-418-11	CARBON	1.2K	5%	1/4W	

****

*A-1646-055-A H1 BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-562-837-11	JACK	

<TERMINAL BLOCK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J81	1-568-678-11	TERMINAL BLOCK, S 3P	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C081	1-163-181-00	CERAMIC CHIP	100PF	5%	50V	
C082	1-163-181-00	CERAMIC CHIP	100PF	5%	50V	
C083	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C087	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1008*	1-564-513-11	PLUG, CONNECTOR 10P	
CN1051*	1-568-879-11	PIN, CONNECTOR 4P	

<JUMPER RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR1	1-216-295-00	METAL GLAZE	0	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<COIL>			
L081	1-408-409-00	INDUCTOR	10UH		
L082	1-408-409-00	INDUCTOR	10UH		
		<RESISTOR>			
R081	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R082	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R083	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R084	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
R085	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
		<SWITCH>			
S081	1-571-532-21	SWITCH, TACTIL			
S082	1-571-532-21	SWITCH, TACTIL			
S083	1-571-532-21	SWITCH, TACTIL			
**					
	*A-1646-056-A	H2 BOARD, COMPRETE ******************			
	*4-374-987-01	GUIDE, LIGHT			
	4-381-686-01	BRACKET (B), LIGHT GUIDE			
		<CONNECTOR>			
CN1132	1-564-511-11	PLUG, CONNECTOR 8P			
		<DIODE>			
D092	8-719-948-31	DIODE LD-201VR			
	*4-201-076-01	HOLDER, LED; D092			
D093	8-719-948-31	DIODE LD-201VR			
D094	8-719-948-31	DIODE LD-201VR			
		<IC>			
IC091	8-741-101-75	IC SBX1610-11			
		<RESISTOR>			
R091	1-216-190-00	METAL GLAZE	470	5%	1/8W
**					
	*A-1651-060-A	J BOARD, COMPLETE ******************			
		<CAPACITOR>			
C270	1-163-063-00	CERAMIC CHIP	0.022MF		50V
C271	1-163-063-00	CERAMIC CHIP	0.022MF		50V
C295	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C296	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C298	1-101-005-00	CERAMIC	0.022MF		50V
C401	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C402	1-126-101-11	ELECT	100MF	20%	16V
C403	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C410	1-124-917-11	ELECT	33MF	20%	50V
C421	1-124-910-11	ELECT	47MF	20%	50V
C422	1-124-910-11	ELECT	47MF	20%	50V
C423	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C424	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C425	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C426	1-124-477-11	ELECT	47MF	20%	16V
C427	1-164-346-11	CERAMIC CHIP	1MF		16V
C428	1-164-346-11	CERAMIC CHIP	1MF		16V
C429	1-124-119-00	ELECT	330MF	20%	16V
C901	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C902	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C904	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C905	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C906	1-101-004-00	CERAMIC	0.01MF		50V
C907	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C908	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C909	1-101-004-00	CERAMIC	0.01MF		50V
C910	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C911	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C912	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C913	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C914	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C915	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C916	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C917	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C918	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C919	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C920	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C921	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C922	1-124-477-11	ELECT	47MF	20%	16V
C923	1-164-346-11	CERAMIC CHIP	1MF		16V
C924	1-124-477-11	ELECT	47MF	20%	16V
C925	1-124-477-11	ELECT	47MF	20%	16V
C926	1-164-346-11	CERAMIC CHIP	1MF		16V
C928	1-124-477-11	ELECT	47MF	20%	16V
C929	1-124-477-11	ELECT	47MF	20%	16V
C930	1-124-477-11	ELECT	47MF	20%	16V
C931	1-164-346-11	CERAMIC CHIP	1MF		16V
C932	1-164-346-11	CERAMIC CHIP	1MF		16V
C933	1-124-477-11	ELECT	47MF	20%	16V
C935	1-124-477-11	ELECT	47MF	20%	16V
C936	1-164-346-11	CERAMIC CHIP	1MF		16V
C937	1-164-346-11	CERAMIC CHIP	1MF		16V
C938	1-124-477-11	ELECT	47MF	20%	16V
C1301	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1302	1-126-101-11	ELECT	100MF	20%	16V
C1303	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1304	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1305	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C1306	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C1307	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1309	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C1310	1-126-101-11	ELECT	100MF	20%	16V
C1311	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1312	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1313	1-124-917-11	ELECT	33MF	20%	50V
C1318	1-124-910-11	ELECT	47MF	20%	50V
C1319	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1320	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1321	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1322	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1323	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1324	1-126-101-11	ELECT	100MF	20%	16V
C1325	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1326	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1327	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1328	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1329	1-163-038-00	CERAMIC CHIP	0.1MF		25V

J

REF.NO.	PART NO.	DESCRIPTION		REMARK
C1330	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1331	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1332	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1333	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1336	1-163-249-11	CERAMIC CHIP 82PF	5%	50V
C1337	1-163-257-11	CERAMIC CHIP 180PF	5%	50V
C1338	1-163-227-11	CERAMIC CHIP 10PF	0.5PF	50V
C1339	1-163-227-11	CERAMIC CHIP 10PF	0.5PF	50V
C1340	1-124-910-11	ELECT 47MF	20%	50V
C1344	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1408	1-163-101-00	CERAMIC CHIP 22PF	5%	50V

<CONNECTOR>

CN1208*	1-564-525-11	PLUG, CONNECTOR 10P
CN1209	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P
CN1210*	1-564-522-11	PLUG, CONNECTOR 7P
CN1233*	1-564-518-11	PLUG, CONNECTOR 3P

<DIODE>

D401	8-719-921-69	DIODE NTZJ-9.1
D403	8-719-921-69	DIODE NTZJ-9.1
D405	8-719-921-69	DIODE NTZJ-9.1
D406	8-719-921-69	DIODE NTZJ-9.1
D407	8-719-921-69	DIODE NTZJ-9.1
D901	8-719-921-69	DIODE NTZJ-9.1
D902	8-719-921-69	DIODE NTZJ-9.1
D903	8-719-921-69	DIODE NTZJ-9.1
D904	8-719-921-69	DIODE NTZJ-9.1
D905	8-719-921-69	DIODE NTZJ-9.1
D906	8-719-921-69	DIODE NTZJ-9.1
D907	8-719-921-69	DIODE NTZJ-9.1
D908	8-719-921-69	DIODE NTZJ-9.1
D909	8-719-921-69	DIODE NTZJ-9.1
D910	8-719-921-69	DIODE NTZJ-9.1
D911	8-719-921-69	DIODE NTZJ-9.1
D913	8-719-921-69	DIODE NTZJ-9.1
D914	8-719-921-69	DIODE NTZJ-9.1
D915	8-719-921-69	DIODE NTZJ-9.1
D916	8-719-921-69	DIODE NTZJ-9.1
D917	8-719-921-69	DIODE NTZJ-9.1
D919	8-719-921-69	DIODE NTZJ-9.1
D920	8-719-921-69	DIODE NTZJ-9.1
D921	8-719-921-69	DIODE NTZJ-9.1
D922	8-719-921-69	DIODE NTZJ-9.1
D923	8-719-921-69	DIODE NTZJ-9.1
D924	8-719-921-69	DIODE NTZJ-9.1
D925	8-719-921-69	DIODE NTZJ-9.1
D926	8-719-921-69	DIODE NTZJ-9.1
D927	8-719-921-69	DIODE NTZJ-9.1
D928	8-719-921-69	DIODE NTZJ-9.1
D930	8-719-921-69	DIODE NTZJ-9.1
D931	8-719-921-69	DIODE NTZJ-9.1
D932	8-719-921-69	DIODE NTZJ-9.1
D1301	8-719-914-43	DIODE DAN202K

<FILTER>

FL1301	1-236-620-11	FILTER, LOW PASS
FL1302	1-236-620-11	FILTER, LOW PASS
FL1303	0-552-483-00	BPF
FL1303	1-239-930-11	FILTER, BAND PASS
FL1304	1-236-164-11	ENCAPSULATED COMPONENT

REF.NO.	PART NO.	DESCRIPTION	REMARK

<IC>

IC401	8-752-067-28	IC CXA1545AS
IC402	8-759-073-00	IC TEA2114
IC1301	8-752-357-88	IC CXD2024Q-TL

<JACK>

J901	1-695-296-11	TERMINAL BLOCK, S
J903	1-695-550-11	SOCKET 21P
J904	1-695-296-11	TERMINAL BLOCK, S
J905	1-695-293-11	SOCKET 21P
J906	1-695-296-11	TERMINAL BLOCK, S
J907	1-695-293-11	SOCKET 21P

<JUMPER RESISTOR>

JR291	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR292	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR293	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR401	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR402	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR403	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR404	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR405	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR406	1-216-295-00	METAL GLAZE	0	5%	1/10W

<COIL>

L291	1-402-711-11	INDUCTOR, WIDEBAND	
L292	1-402-711-11	INDUCTOR, WIDEBAND	
L293	1-402-711-11	INDUCTOR, WIDEBAND	
L1301	1-408-405-00	INDUCTOR	4.7UH
L1302	1-408-403-00	INDUCTOR	3.3UH
L1303	1-408-405-00	INDUCTOR	4.7UH
L1304	1-408-405-00	INDUCTOR	4.7UH
L1306	1-408-405-00	INDUCTOR	4.7UH
L1307	1-410-431-11	INDUCTOR	100UH
L1308	1-410-428-21	INDUCTOR	56UH

<TRANSISTOR>

Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1301	8-729-216-22	TRANSISTOR 2SA1162-G
Q1302	8-729-216-22	TRANSISTOR 2SA1162-G
Q1303	8-729-216-22	TRANSISTOR 2SA1162-G
Q1304	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1305	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1306	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1307	8-729-216-22	TRANSISTOR 2SA1162-G
Q1308	8-729-216-22	TRANSISTOR 2SA1162-G
Q1309	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1311	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1312	8-729-216-22	TRANSISTOR 2SA1162-G
Q1313	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1314	8-729-216-22	TRANSISTOR 2SA1162-G
Q1315	8-729-216-22	TRANSISTOR 2SA1162-G

<RESISTOR>

R291	1-216-190-00	METAL GLAZE	470	5%	1/8W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R292	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R297	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R298	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R402	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R405	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R406	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R407	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R410	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R411	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R412	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R413	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R414	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R416	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R417	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R419	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R420	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R421	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R422	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R423	1-216-015-00	METAL GLAZE	39	5%	1/10W	
R424	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R425	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R428	1-249-393-11	CARBON	10	5%	1/4W	F
R429	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R430	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R431	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R432	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R433	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R901	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R902	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R903	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R904	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R905	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R906	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R907	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R908	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R909	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R910	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R911	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R913	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R914	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R915	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R916	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R917	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R919	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R920	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R921	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R922	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R923	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R924	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R925	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R926	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R927	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R928	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R929	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R930	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R931	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R932	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R933	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R934	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R935	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R936	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R937	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R938	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R939	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R940	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R941	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R942	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R943	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R944	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R945	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R946	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R948	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R949	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R950	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R951	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R952	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R953	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R954	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R955	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R956	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R957	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R958	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R959	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R960	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R961	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R967	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R968	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R969	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R970	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R971	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R972	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R973	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R974	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R975	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R976	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R977	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1301	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1302	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1303	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1304	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1305	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1306	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1307	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1308	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1309	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1310	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1311	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1312	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1313	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1314	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1315	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1316	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1317	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1318	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1319	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1320	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1321	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1322	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1324	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1325	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1326	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1327	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1328	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1329	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1330	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	

J

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1332	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	
R1333	1-216-666-11	METAL CHIP 4.3K 0.50% 1/10W	
R1334	1-216-636-11	METAL CHIP 240 0.50% 1/10W	
R1335	1-216-637-11	METAL CHIP 270 0.50% 1/10W	
R1336	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R1337	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R1338	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R1339	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R1342	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R1344	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R1345	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1346	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R1347	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1349	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1350	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1351	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1352	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R1353	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R1354	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R1355	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R1356	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1357	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1358	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1359	1-216-043-00	METAL GLAZE 560 5% 1/10W	

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠1-406-807-11	COIL, DEMAGNETIZATION	
	⚠1-452-509-12	NECK ASSY, PICTURE TUBE (NA-308)	
	1-504-121-21	SPEAKER (SQUAWKER) (5CM)	
	1-504-145-11	SPEAKER (12CM)	
	⚠1-751-680-11	CORD, POWER(WITH NOISE FILTER) 2.5A/ 250V (KV-S2941A,S2941B,S2941D, S2943E,S2941K)	
	⚠1-590-762-11	CORD, POWER(WITH PLUG) 2.5A/250V (KV-S2942U)	
	⚠8-451-444-11	DEFLECTION YOKE Y29GXC (MTY)	
V901	⚠8-733-841-05	PICTURE TUBE 29GX (M68KZT10X)	

ACCESSORIES AND PACKING MATERIALS

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-039-906-01	BAG, PROTECTION	
	*4-202-105-01	CUSHION (LOWER) (ASSY)	
	*4-202-106-01	CUSHION (UPPER) (ASSY)	
	*4-202-117-01	INDIVIDUAL CARTON	
	4-202-137-01	DOOR, REAR	
	4-202-615-11	BROAD SHEET, SERVICE	
	4-202-687-41	MANUAL, INSTRUCTION (KV-S2941A)	
	4-202-687-51	MANUAL, INSTRUCTION (KV-S2941B)	
	4-202-687-11	MANUAL, INSTRUCTION (KV-S2941D)	
	4-202-687-81	MANUAL, INSTRUCTION (KV-S2943E)	
	4-202-687-91	MANUAL, INSTRUCTION (KV-S2941K)	
	4-202-687-61	MANUAL, INSTRUCTION (KV-S2942U)	

REMOTE COMMANDER

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-466-854-41	REMOTE COMMANDER (RM-860)	
	9-903-664-01	POCKET, COVER	
	1-467-272-21	COMMANDER (STANDARD TYPE) (RM-831)	
	9-903-466-01	POCKET, COVER	

9-964-982-01

Sony Corporation
Consumer A&V Products Company
TV & Display Products Div.

English
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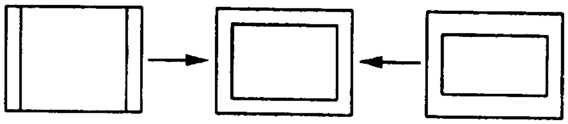
DEFLECTION SYSTEM ADJUSTMENT

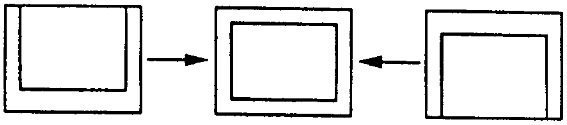
1. Enter into service mode and select CXD 2018.
2. Select and adjust each item in order to get an optimum image.

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	NON INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

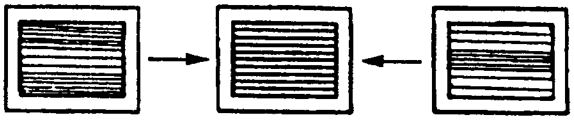
V SIZE



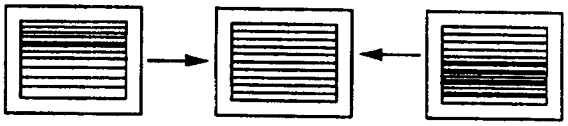
V SHIFT



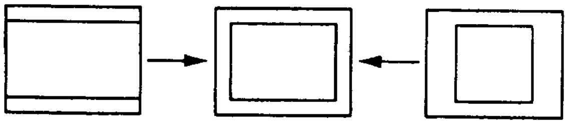
S CORRECTION



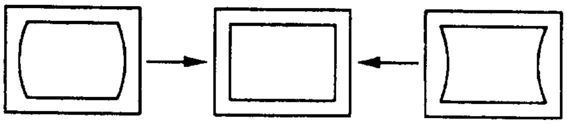
V LINEARITY



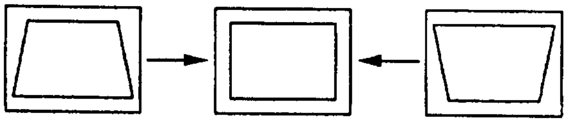
H SIZE



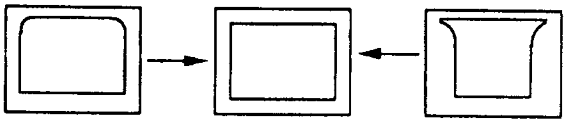
PIN AMP



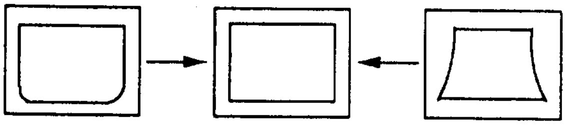
TILT



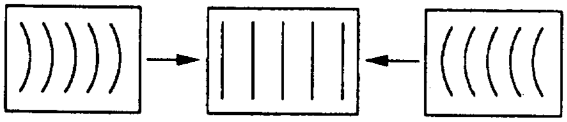
UPPER CORNER PIN



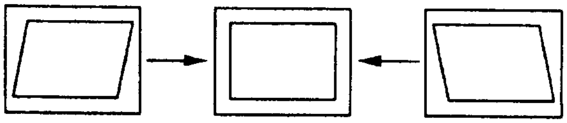
LOWER CORNER PIN



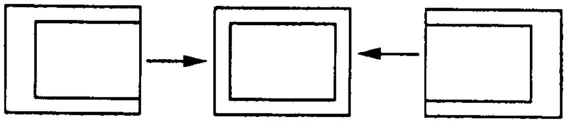
V BOW



ANGLE



H SHIFT



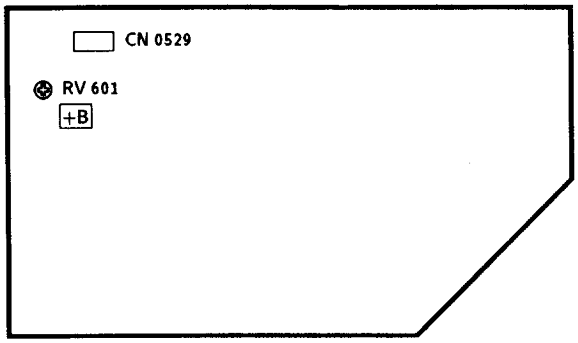
3. Press OK button to write the data.

If menu display may disturb the adjustment press 🔇 to clear, to resume it, press 🔇 again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

+B (+135 V) ADJUSTMENT (RV 601)

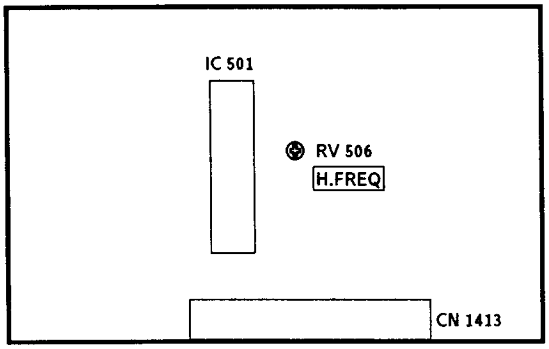
D BOARD



1. Turn on the power of the TV set.
2. Connect a digital multi-meter to ① pin of CN 0529 on D board.
3. Adjust RV 601 on D board to +135 V.

H.FREQ ADJUSTMENT (RV 506)

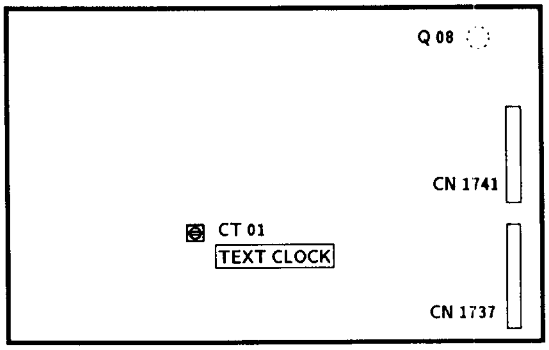
M BOARD



1. Connect GND to ⑫ pin of IC 501 on M board.
2. Connect a frequency counter to ④ pin of IC 501.
3. Adjust RV 506 on M board to 15,625+100 Hz.
4. Remove ⑫ pin of IC 501 from GND.

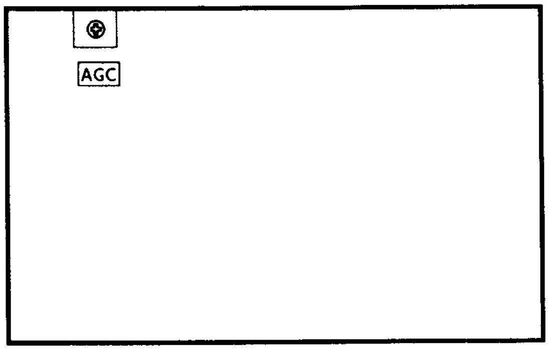
TEXT CLOCK ADJUSTMENT (CT 01)

V BOARD



1. Get TEXT MENU on screen.
2. Connect GND and the base of Q 08 on V board.
3. Adjust CT 01 on V board so that the MENU stands still as much as possible.

AGC ADJUSTMENT (IF BLOCK)



1. Receive off-air signal.
2. Adjust AGC VR so that there is no snow noise and cross-modulation.
3. Change receiving channel and confirm status.

4-3. TEST MODE 2 :

Is available by pressing Test button two times, OSD "TT"appears. The functions described bellow are available by pressing the two numbors. To release the Test Mode 2, press two times 0, or switch TV in Standby Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Aging Condition (Volumin., Picture max., Brightness max., Aging 2 Mode of CXA 1587S, TDA 2595 is locked to CXA 1587S via PIN 34 of μ-Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13-14	dummy
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM
17	Preset Lavel for AV Sources
18	dummy
19	Stereo Seperation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy

30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA 9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA 1587S (Only in Plog 99 available)
42	Default setting of CXA 2018 (Only in Plog 99 available)
43	Default setting of CXA 1526 (Only in Plog 99 available)
44	(all Port High) Not yet
45	(all Port High) Not yet
46-48	dummy
49	Erease the NVM Testbyte (this byte detects already stored NMV's) After selecting this function, switch TV Off and On → the NVM will be preset by μ-Controller. (Not the channel data)

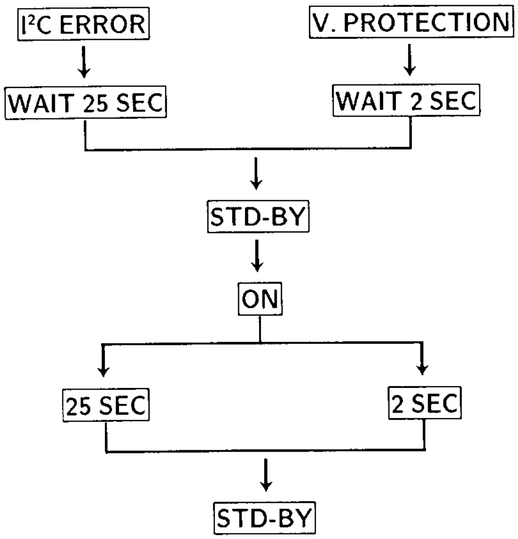
Note : For No. 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched On and TDA 9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnos system can operates as follows.

- When MP can't get the acknowledge back from the device, LED starts flashing according to the table as attached.



In case of more errors in parallel, the blinking error shows max. Priority according to the error number (e.g. error 2 and error 5 appears together, then LEDs shows error 2) .

TABLE OF ERRORS

ERROR COUNT	IC TYPE	FUNCTION
1	Ⅱ C BUS	SDA low
2	X 24 C 16	EEPROM
3	SDA 3202	Tuner Pll
4	TDA 9145	Colour decoder
5	CXA 1587S	RGB/Jungle
6	TDA 6612	Sound processor
7	CXD 2018	V deflection
8	CXA 1545	AV switch
11	SDA 5248	Text
13		V protection
Stand by LED blinking		No IK return

4-5. ERROR Ⅱ C BUS DIAGNOSIS SYSTEM IN AE 2 CHASSIS AVAILABLE

For all ICs in AE 2 chassis which are necessary to get picture and sound there is a built in error I²C Bus diagnosis system.

In case of no acknowledge bit, LED A and LED B starts blinking as shown.